THE BUILDER

A Journal for the Architect & Constructor

OCTOBER 4, 1929. No. 4522

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87TH YEAR

The Dominion Theatre, Oxford Street and Tottenham Court Road: View of Boxes.

MESSRS. WILLIAM AND T. R. MILBURN, FF.R.I.B.A., Architects.

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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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IMPERIAL ROME AND THE MODERN CITY

THE selection of Rome as the chief centre for the Twelfth Congress of the International Federation for Housing and Town Planning provokes some interesting comparisons and reflections on the ancient city which formed the background to this Congress. It seems possible that many of our present problems are at least as old as the time of Augustus, though (under present-day conditions) the solution of these problems is not so simple a matter as in the days when public works of enormous size and magnificent scale could be constructed by slaves and captives—when the cost of labour was negligible and the problem of adequately housing a population of about one million inhabitants was simplified by strictly observed class distinctions.

But even if these striking differences are considered there is much to be learned by both architects and town planners from the magnificent ruins of a great era of civilisation. First one is impressed by the bold simplicity; the disregard of minor elements in the planning of the great baths, basilicas and public buildings of Imperial Rome. Then one observes the care given to the selection of an appropriate site, and the nice adjustment of great open spaces (the stadium, the streets and the forum) to the size of the buildings which surrounded them.

Probably no lesson learned from the debates and discussions of the Congress itself is so valuable as this neglected part of the art of design and city planning—the relation which should exist between an open space and the buildings adjoining it. One feels that, in this respect, as in many other directions, the conditions of modern civilisation approximate more nearly to ancient Rome than to the later mediæval towns, crushed by the need of defence into a restricted space enclosed by a city wall.

Professor Giovannoni, in his valuable paper on the "Historical development of Roman town planning," read at the opening session of the Congress, pointed out that it might fittingly serve to-day as an example of the way to solve the problems connected with replanning of historic towns. During the period between the end of the Republic and the fourth century A.D.—a period when Rome was a great metropolis with some 1,000,000 inhabitants, the centre of a great Empire and the focal point of a great civilisation—the development was, at first, uncontrolled and chaotic. Later it was regulated in accordance with definite principles, comparable to those which we are now seeking to apply to the growth of modern cities. So far as actual "town plans" are concerned we only know of those drawn up under Nero (54–63 A.D.) for the reconstruction of the eight districts destroyed by the fire. But the ordinances concerning building heights in the densely populated districts in the time of Augustus; the well-known law "de Urbe Augeada" of the 700th year of Rome (49 B.C.); the institution of special officers to supervise and direct public-building services and the works of draining the low-lying and marshy districts, or, again, of providing communications inside the city and thence—in a radiating system of great consular roads—to all parts of the Empire, give evidence of a definite programme of what we should call Regional and Town Planning. Here we can note that these problems were treated as one comprehensive whole, closely related to the general problem of the orderly development of the Empire in the political and social spheres.

In the city itself this programme was based on two main principles: decentralization and division into definite zones. The central region near the Forum was kept free from all traffic and reserved for amenity and use by the citizens in their daily business, for civic functions, official ceremonies and for public assemblies. Zoning or regulations as to the use of buildings in different parts of the city were observed, such as the use of the Suburra and Trastevere districts for self-contained tenement buildings and the Campus Martius for public buildings, while on the hills of the Viminal and Esquiline the patricians had their villas, and finally at the port of Ostia, where large areas were reserved for commercial purposes. With the decline of Roman civilisation there followed a period of eclipse: the diminished population centred round the Capitol and near the Tiber, while small centres of urban life grew up round the early Christian churches, which eventually became the focal points of the new development during the period of the Renaissance. The plans of the Popes Sixtus V., Alexander VI. and Julius II. can be described as "town planning" in the modern sense of the term. They had as their basis a fan-shaped series of roads centred on the Bridge of St. Angelo. These served the public buildings, the palaces of the cardinals, patricians and nobles—and the relatively small commercial area. This period, between the fifteenth and sixteenth centuries, is of considerable interest because the centre of the city was twice changed and because of the skill exhibited in planning groups of important buildings in relation to the squares and streets; the lesson of Imperial Rome had been relearned though expressed in a different form.

In the second half of the sixteenth century there was the great town plan of Pope Sixtus V., the work of Domenico Fontana. It was proposed to join the various great churches, etc., by straight roads on a system of triangles. Vistas were planned with obelisks, fountains and architectural features at road junctions and terminal points, but the conception was so vast that the three centuries which followed did not see it completed, activity being chiefly centred in the provision of large open spaces, such as the Piazza of St. Peter's, Piazza Navona, Piazza del Quirinale and Piazza de Spagna, which contribute so much to the character of the city. During the Napoleonic period activity was centred in the excavation of the ancient imperial city, and this activity has continued to the present day. At present these two currents of thought divide the experts; some of those who expounded their schemes during the congress would sacrifice much of convenience and traffic needs to a more complete excavation and restoration of the ancient city in the central area. Others appear to consider that traffic needs are so seriously hampered by the vestiges of the old city that they would sweep away all impediments in the name of progress and convenience.

But these proposals are overshadowed by the commanding personality of "Il Duce," Signor Mussolini, who leaves us in little doubt as to the programme. He thus defined his intentions in a recent speech. "The problem of this Rome of the twentieth century may be divided into two categories; the problems of necessity and those of grandeur. The former arise from the growth of Rome and are comprised in two words: houses and communications. The problems of greatness are of another order; we must free ancient Rome from mean and mediocre buildings, but alongside of ancient and mediæval Rome we must create Rome of the twentieth century. Rome cannot, and must not, be a modern city in the banal and ordinary sense of the word; it should have a city worthy of its glory and this glory must be renewed to express the principles of the Fascist age to future generations."

These words are inspiring to Roman town planners and it seems possible that we should ourselves achieve more satisfactory results if we remembered that the greatness of Imperial Rome was founded on the principle of strong government and definite action, which alone can overcome difficulties and obstacles in the ordered development of our towns and cities.

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NOTES

A "Cautionary Guide to St. Albans."

The Design and Industries Association has just issued a "Cautionary Guide to St. Albans" which, apart from an excellent two-page introduction by Mr. Clough Williams-Ellis, consists entirely of illustrations, fifty-six in number, showing how the one-time beautiful city of St. Albans has been vulgarised by ugly modern buildings and badly designed alterations to old ones; unsightly posters and other forms of outdoor advertisement; wayside shacks, rubbish dumps and all the other concomitants of "civilisation." The author explains that the Association has no special "down" on St. Albans. "We should not have bothered with it," he writes, "had we not felt that it was fundamentally a distinguished place with a heart of gold (however deeply overlaid with dross) and that it possessed a soul to be saved. Almost any old town in England would—alas—have served more or less, but St. Albans was unusually convenient, both in size and location, and had, moreover, the distinction of being a Cathedral City."

Guiding Public Taste.

The grievous harm that has been done to St. Albans is only too obvious from this booklet, which, however, is not merely destructive in its criticism, for it shows, as the author says, "success and failure, commodity and awkwardness, seemliness and the reverse, in sufficiently arresting contrast to provoke discontent and a demand for a better state of things even in the less amenity-minded of our citizens." The "guide-book" should do excellent work in creating a healthy public opinion in matters concerning the amenities of our towns, villages and countryside. We hope this is only the first of a series, for we believe it is chiefly by graphic illustration that the man-in-the-street may be taught to distinguish between good and bad in architecture and the amenities generally. The booklet, which is admirably produced, is issued at the price of sixpence from 9, Queen Square, Bloomsbury, London, W.C.1. We reproduce two illustrations from it—one showing the historic Gate House (which is illustrated and described elsewhere in this issue) and the other showing how some gracious eighteenth-century houses in St. Peter's Street are being spoiled by the insertion of shop fronts in their ground-floor stories.

From the Exhibition at the R.I.B.A.

Pottery by Mr. Svend Hammershöj.

A Danish Exhibition.

An interesting exhibition is now on view at the R.I.B.A. Galleries by a Danish artist, Mr. Svend Hammershöj. The subjects are mainly of paintings of Oxford and Denmark, which are, in some instances, quite impressive, as No. 16, the trees and old tiled roofs, Copenhagen; the tone and colour are very pleasing in this well-chosen subject. The paintings generally have rather a sombre tone, but the best results are where trees and buildings are in contrast. This artist evidently has a special gift for pottery, the examples of which seem to strike a fresh note, with good quality of form and delicacy of detail. We wish more pottery of this quality were to be found in our own manufactories.

A National Collection of Casts.

The creation of a really good and representative collection of casts in London ought not to be so very difficult, but its adequate housing presents some real difficulty. We have always felt that the objects selected for museum exhibition might be chosen with more care and discrimination, and we think it probable that in some classes of exhibits one in twenty of the objects shown would answer all useful purposes. The British Museum is probably filled to its utmost capacity and could not do much more or better as regards casts, but one would think that some way might be found to meet this very decided lack of a fine collection of casts somewhere at South Kensington. Dr. Gardner writes as to the necessity for such a collection of casts "as a great centre for a historical and critical

The Dominion Theatre: Entrance Front, Tottenham Court-road.

Messrs. William and T. R. Milburn, FF.R.I.B.A., Architects.

study of the history of art." He says, "To purchase a fairly adequate collection of casts is not an expensive undertaking; a few thousand pounds would go a long way. A much more serious and difficult question is the provision of a suitable and spacious gallery for their exhibition. But it may be hoped that the pointing out of the need will be the first step towards its fulfilment."

The Rome Congress. The Twelfth International Housing and Town Planning Congress, as we record in our leading article and elsewhere, has just concluded the first of a series of sessions in Rome. The agenda for the Congress included papers and subsequent discussions on the following subjects: The historical development of Rome and its significance for modern town planners"; "Financing working-class and middle-class housing with special reference to methods of attracting new capital"; "The replanning of old and historic towns to meet modern conditions"; "Planning apartment housing schemes in large towns"; "Methods of planning for the expansion of towns, with special reference to old and historic towns"; "The need for research in town planning." The programme also included visits to the excavations of Ostia, the port of Ancient Rome, and to new housing and town planning schemes in the Roman district. Later visits were made to Naples and Pompeii, after which the activities of the delegates were resumed at a final session in Milan with study visits to towns on the Italian Lakes. It will be seen that the programme was a judicious mixture of meetings and excursions. A report of the conclusions reached on the various subjects discussed and some notes on the cities visited are given this week.

A Town Planning Difficulty. A correspondent writes: "One of the difficulties that arises in town planning is the hiatus that exists between the time that a preliminary statement is prepared and objections considered, and the date when such a scheme has statutory authority. An area may be scheduled as residential, but factories may be erected up to the time that the scheme has the force of law. Such a difficulty has arisen at Canterbury where, in a district that has been scheduled for residential purposes, certain works are being constructed close by the workhouse and not a mile away from the cathedral. The Canterbury Corporation were asked to amend the scheme and create an industrial area on this site. But in view of local protest, including strong opposition from the Dean of Canterbury, the Kent and Canterbury Hospital Committee, and the Board of Guardians, the Council decided to keep to their original plan. But the building continues and a chimney is nearly completed. It must be understood that such buildings, carried out in despite of a town-planning scheme, may in time be closed down without any compensation whatsoever. Industrialists are proceeding at their own risk when they ignore the town-planning scheme, even if it is only in the interim stage. More publicity, showing the risk of disregarding schemes even in their early stages, is needed."

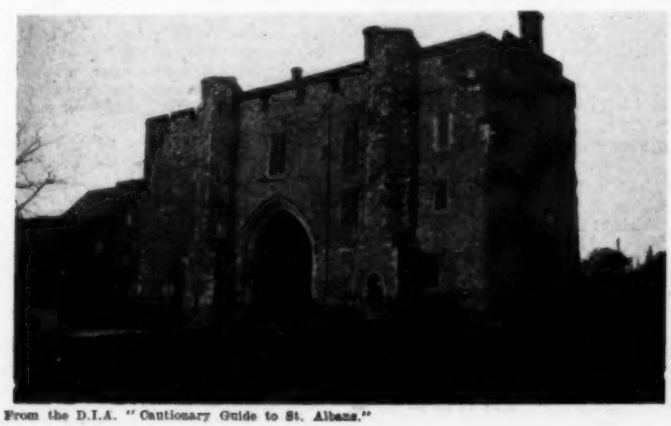
From the D.I.A. "Cautionary Guide to St. Albans."

"The Advance of Business in St. Peter's Street," St. Albans.

The Prettiest Village. "This," shouted the motorist to his companion, "is the prettiest village in England. Wasn't it?" Whether true or not, this anecdote comes near to the heart of things. So many of us have been going on our frivolous, selfish way, not too blind to see that we are losing something, but too selfish or indifferent to take any active steps. We are an independent race, and we resent control, particularly where bad taste is involved. We depend, therefore, upon devoted little bands of enthusiasts to scheme and work for us, so that we may be saved from ourselves. Meanwhile we rush along.

The Old Home. The atmosphere of an old home was described wonderfully by Mr. Ramsay MacDonald. His thoughtful description has been often quoted and is worth quoting again and again. "There are places into which time and event have breathed the breath of life, and they have become as living souls. We think of them as brooding over their past and looking upon the generation around them with the detachment of one whose thoughts are fixed elsewhere, or with the pity of one who induces in the midst of a world that is fussing, fuming and passing into shadow. They are too dignified to speak; they only muse and remember."

A Discordant Interlude. It is painful to change from the poetry of architecture to ways and means in terms of whether subsidies shall be bigger or smaller. The mind refuses to believe that the tradition of architecture and the tradition of a home are in the future to be embodied in what are known as Council Houses. We may be gaining something from our social reformers, but they are losing a lot for us. It may seem characteristic to many that the Premier's Scottish home is now surrounded with working-class houses, but they are characteristic of nothing in traditional building that can ever hold the memory for even a minute. They are not explained away as a manifestation of democracy; indeed, it is an injustice to harbour the suggestion. The Premier's fine interpretation of the soul of building should supply a clue to those who think superficially.



From the D.I.A. "Cautionary Guide to St. Albans."

The Gate House, St. Albans.

GENERAL NEWS

Professional Announcements.

Messrs. Adams, Thompson and Fry, 121, Victoria Street, S.W.1, have been appointed by the South-East Sussex Joint Town Planning Committee to prepare a report on South-East Sussex.

Mr. W. H. Cousens, Engineer and Surveyor to the Bridgwater (Somerset) R.D.C., has tendered his resignation to the Council. After 14 years' service with the latter he has been appointed to the county divisional surveyorship for the western area of Somerset.

Polytechnic Extensions.

H.M. the Queen has graciously consented to open the Polytechnic extension in Little Tichfield Street, on October 10. The architect is Mr. F. J. Wills, F.R.I.B.A., 62, Oxford street, W.1. The new North-Western Polytechnic in Kentish Town, which has been designed by Messrs. Riley and Glanfield, FF.R.I.B.A., 6, Raymond Buildings, W.C.1, will be opened on completion by the Prince of Wales.

Proposed British Government Building, Antwerp.

Work has just started on the erection of the British Government Building at the First International, Maritime and Colonial Exhibition, to be held next year. The organisation of the British section is in the hands of the Department of Overseas Trade, Old Queen-street, S.W.1. The new building has been designed by Sir Edwin Lutyens, R.A., F.R.I.B.A., of 17, Queen Anne's-gate, S.W.1, in collaboration with Professor A. E. Richardson, of Messrs. Richardson & Gill, 41, Russell-square, W.C.1. The work is estimated to cost about £100,000.

University of London, University College.

The session 1929-30 opens at University College on Monday, October 7. A course of lectures, with lantern illustrations, on "The History of Decoration," will be given by Professor Sir Flinders Petrie, on Thursdays, at 2.30 p.m., beginning with a public introductory lecture on October 10. Among the public lectures that have been arranged for the first term are:—"The History of Greek Sculpture," by Professor Bernard Ashmole, on Tuesday, October 15, at 3 p.m.; and "The Elizabethan House," by Mr. Arthur Stratton (one of a course on "England in Shakespeare's Day"), on Monday, October 21, at 2 p.m. Particulars of these and other public lectures may be had on application to the Secretary, University College, London, W.C.1. A stamped addressed envelope should be enclosed.

OBITUARY

James Macintyre Henry.

We regret to record the death last week of ex-Lord Dean of Guild James Macintyre Henry, F.R.I.B.A.

Emile Antoine Bourdelle.

M. Emile Antoine Bourdelle, the distinguished French sculptor, who has died suddenly, was a frequent exhibitor at the Royal Academy. Born in 1861, at Montauban, he had his earliest training at his father's workshop in Toulouse, but came soon to Paris where he worked with Falguière, and in 1885 exhibited his "Adam après la Faute." He was greatly influenced by Rodin, but about 1900 he broke away from dramatic naturalism and turned to the study of the Greeks. In England Bourdelle was best known by his portraiture, such as his bust of Sir James Frazer, which was shown at the Academy. His "Rodin Travaillant à la Porte de l'Enfer" is famous—as is also his head of "Beethoven"—and among his portraits from life are those of Anatole France, Auguste Perret, the architect, and Koeberlè, the surgeon. At the last Venice International Exhibition there was a large collection of works by Bourdelle, and in November last year, he was the subject of a comprehensive exhibition at the new Palais des Beaux-Arts, Brussels. He is represented in the Luxembourg Museum by "Hercules as Archer," and among his imaginative conceptions "The Dying Centaur" and "The Triumph of Aphrodite" may be named.

Mr. J. Faulder Burn.

We regret to announce the sudden death of Mr. J. Faulder Burn, head and founder of Messrs. Winget, Ltd., concrete machinery manufacturers, of London and Warwick. Mr Burn, who was the son of Mr. John Burn, contractor, formerly of Stockton-on-Tees, now of Hale, Cheshire, was only 47 years of age. As one of the pioneers of concrete constructional work in this country, he founded his company in 1906. This was incorporated in 1908, with its head offices at Newcastle-on-Tyne—subsequently transferred to 25, Victoria-street, London. Here the firm remained until it moved to its present address at Winget House, Grosvenor-gardens. In the meantime, Mr. Faulder Burn had built and developed at Warwick the only foundry and engineering works in this country specially devoted to the manufacture of concrete machinery of every description. The success of the firm under Mr. Burn's guidance is too well known to need any description here.

Mr. Burn was a man of remarkable vitality and forceful personality. A born leader, he had the gift of inspiring confidence wherever he went, and won the personal affection as well as the loyalty of his own staff by the happy spirit of comradeship which he imparted into all his undertakings. His wife and two children survive him.

COMPETITION NEWS

Guildford Municipal Buildings Competition.

Guildford Town Council are to invite local architects to submit competitive designs for the erection of new municipal buildings on a site in High-street. The Council will offer a premium of £50 for the winning design and £25 for the second design. Mr. T. S. Tait, F.R.I.B.A., 1, Montague-place, W.C.1, is assessor.

Municipal Pavilion, etc., Aberystwyth.

We are informed by the Aberystwyth Town Clerk that the competition for the municipal pavilion, etc., published in our last issue, is a re-casting of the scheme advertised as a competition in our issue of August 2, and now withdrawn. There is therefore but one competition. The closing date is January 1, 1930.

Dudley Wood Council School Competition.

The assessor in this competition, Mr. H. T. Buckland, F.R.I.B.A., has made his award as follows:—

1st, Messrs. Scott and Clark, Regent Chambers, Wednesbury.
2nd, Mr. A. T. Butler, 31, Priory-street, Dudley.
3rd, Messrs. Webb and Gray, 200, High-street, Dudley.

The plans will be on exhibition in the Banqueting Hall of the Town Hall, Dudley, from 10 to 1 and 2 to 6 o'clock on October 7, 8, and 9.

Police and Fire Stations, Accrington.

The Accrington Corporation invite architects of British nationality to submit designs in competition for new Police and Fire Stations which it is proposed to erect on a site in Manchester-road, Accrington. Mr. Herbert J. Rowse, F.R.I.B.A., is the assessor. Premiums of £250, £150, and £100 are offered for the designs placed first, second, and third respectively. Conditions of the competition, together with a plan of the site, can be obtained from the Town Clerk, Mr. William Henry Warhurst, LL.B., Town Hall, Accrington, on and after October 7, on deposit of £2 2s. Designs are to be sent in on or before February 28, 1930.

CORRESPONDENCE

Concrete or Brick for Foundations.

Sir,—I note the letter in your last issue from Mr. W. J. H. Leverton, F.R.I.B.A., with interest, and quite agree that 1 to 8 concrete up to damp-course level is both economical and sound, *provided that the site is unlikely to be subject to vibration set up by traffic.* My contention that dangers arising from the ever-increasing volume of traffic are a new factor requiring consideration is by an apt coincidence borne out in your Inquiry Bureau of the same issue as that in which my article appeared, "V. M." citing a case of vibration to houses set back some 30 feet from the main road. I think Mr. Leverton will agree that reinforcement in the foundation walls would have been of assistance under similar conditions.

Vibration is not unlikely to be met with during actual building operations, and the drain trenches for some time are liable to afford a certain amount of escape to the soil immediately below the concrete foundations. The trenches also act as temporary land drains, draining the foundation trenches in some instances, and reducing the normal moisture content and leading to settlement. Now if the inevitable settlement is *regular* no harm is done, but if it is uneven much damage may arise. Reinforcement is likely to counteract this.

I am inclined to believe that Mr. Leverton overrates the danger of damp setting up corrosion in the reinforcement, because iron or steel cannot rust from water unless free oxygen is present, and the likelihood of this free oxygen being water-borne is improbable at ordinary atmospheric pressure when the concrete casing is of moderately good quality. Portland cement, when setting, produces caustic lime, and as steel will not rust when embedded in a strong alkaline substance, this also minimises the risk. The concrete should, however, be of good and uniform quality, and this uniformity is under ordinary conditions best obtained by machine mixing with standard proportions of water and cement and given numbers of revolutions. No doubt hand-mixing can give satisfactory results, but they are not so uniform.

J. R. Taylor.

Uncontrolled Development.

Sir,—Some men are born to architecture, others achieve architecture, but the majority of us must have architecture thrust upon us. Mr. Morley Horder's estimation of the function of official bodies, "who simply say, 'You must not do this or that,'" is hardly correct, as also is his description of the mental state of the man in the street as "tired." For the function of official bodies is to lead and to guide rather than to forbid, and the man in the street, encouraged by the great work of the voluntary societies, is looking for a leader in architecture of a quality similar to that of Mr. Snowden in Reparations finance. Where, I ask, should we have finally landed in the war had "Tommy Atkins" been "tired" of obeying orders? The present difficulty is that the Government, so far as æsthetic matters are concerned, does not govern. Hence the R.I.B.A. proposals to the Ministry of Health. What Professor Richardson appears to advocate is official leadership of the many voluntary societies, the splendid energies of which, as you so rightly have said, are, of necessity, overlapping.

O. Newbold.

Painting a House.

Sir,—In painting my three-storied house from darker to lighter as it goes up, I think I may have established a new principle, and one that, after all, follows that of construction and most ancient and modern design, viz., from heavier to lighter.

The effect, when subtly done, is certainly very pleasing. I wonder if this or any other varying of exterior painting of a house has been practised before?

John Fothergill.

FROM LYONS TO TOULOUSE.—III.

By L. W. THORNTON WHITE.

From Rodez to Albi, the next stage of the tour, the countryside gradually loses its hilly character. Olive trees and vineyards replace pines and heathlands; fruit trees abound. A feature of particular interest on the journey is the Viaduct de Tanus, across the river valley of the Viaur, the boundary between the Departments of Aveyron and Tarn. The viaduct is of steel construction, and carries the railway across the valley at a height of 380 feet above the river. Its central arch has a clear span of 720 feet, and is, I believe, the largest of its kind in France. Nearing Albi, we rejoin the River Tarn, wider and deeper than we last saw it near Mende, but still retaining its crystal clearness and fascinating colouring.

Albi is the first town we approach where brick is the traditional building material. It is good brick and a good tradition. While still some miles away you will have seen, from the train, the outline of its brick cathedral towering high above the town (Fig. 15). It is a magnificent sight, and you will be dull indeed if you do not "get a thrill" out of it. Commenced in the thirteenth century as a fortress as well as a cathedral, it was completed, except for the modern parapet, in the sixteenth century. From certain angles it looks to-day more like a fortress than a cathedral of mediæval times. On plan it is very simple, consisting of a long central nave and choir surrounded by two-storied side chapels, the solid walls dividing the chapels acting as massive internal buttresses to the lofty vaulted ceiling. The chapels are not clearly expressed in section and elevation, for they rise to the same height as the nave, and the enormous strength of their dividing walls renders any external display of flying buttress and pinnacle entirely unnecessary. The bays are comparatively narrow and boldly defined on the external elevation by tall narrow windows between attached bastion-like buttresses, semi-circular on plan. The buttresses spring from a deeply weathered base, which surrounds the entire building almost without a break. Walls and buttresses rise in solid brickwork to about half the total height of the building, entirely unadorned, when the tall windows with their slender stone mullions afford the first relief. A little higher the buttresses diminish in a bold taper to two-thirds of their lower size and at about the height of the window heads carry stone gargoyles of considerable projection. The shadows of the gargoyles cast by the sun across wall, window and buttress lend added interest to the elevations and help in the appreciation of the modelling of the brickwork. The building is finished with a blind arcade of corbelled arches supporting a cornice mould and parapet, all very simply designed, but rich in comparison with the masses of brickwork below. At the west end is a massive tower, almost as wide as the cathedral on plan and twice its height—a keep to the fortress. Square on plan, with strongly projecting circular angles, the tower is boldly set back in stages till it reaches a height well above that of the cathedral roof, when it assumes an octagonal plan. Following the character of the nave, the tower relies for effect on the rich colouring of its unadorned brickwork for the majority of its height, its octagonal upper stories alone being enriched. In the centre of the south wall of the nave is a fifteenth-century porch of highly carved stonework, in direct contrast with the severity of the brickwork. In spite of its rich colouring and the delicacy of its carving, the porch is not happy. Its design is confused and has little in common with the clearly stated construction of the cathedral itself. Internally, the cathedral is very impressive. Every inch of wall, pier, and vault surface is elaborately painted with geometric patterns in painted architectural settings. Most of the work is by Italians, but happily is spared the confused areas of painted human figures which destroy the harmony and scale of many of the Italian cathedrals of contemporary date. Indeed, the small scale of the painted pattern work at Albi tends to increase the apparent size of the cathedral, and is almost everywhere subservient to the structural lines of the building. It is worth while mounting to the first floor over the side chapels to obtain a clearer view of the paintwork. It will be noticed that the artists have relieved, for themselves, the monotony of repeated geometric pattern by painting in several grotesques and caricatures—many of the last, no doubt, of the architect in charge of the work. Again, in contrast with the structure itself, is some highly carved stonework, this

Fig. 14.

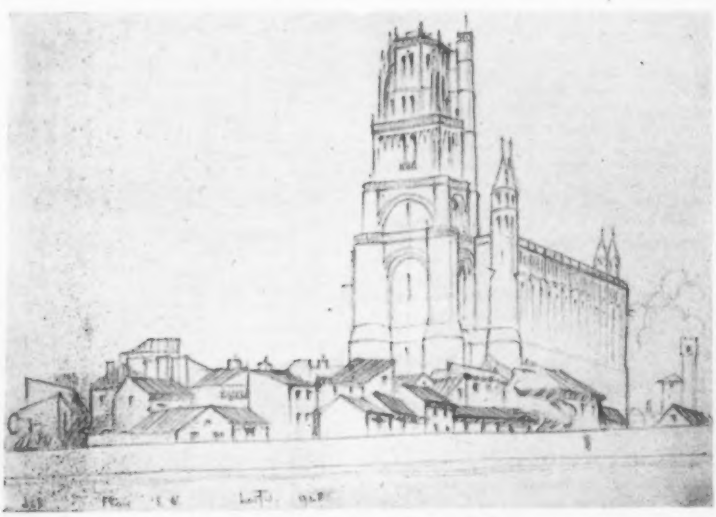


Fig. 15.—Albi Cathedral.

Fig. 16.

Albi : Entrance to Archbishop's Palace.

time in the elaborate screen around the choir. The timber choir stalls, too, are worthy of careful study, in addition to the fine wooden gates in the screen. The marble pulpit is dreadful, a lesson in the choice of the wrong material, of the wrong scale.

Adjoining the cathedral is the old Palace of the Archbishop (Fig. 16), now converted into a museum and garden. It is good to wander in that garden, amid heavily laden vines and flowers of dazzling hue; to watch the fleeting lizards near your feet and the brilliant dragon-flies overhead; to walk along the terrace and look over into the emerald river; to study the bright little houses on the farther bank; to watch perforce a pair of cream-coloured bullocks drag with forceful ease a cart-load of gravel out of the river; and all the while to be near, to lean against, if you please, the finest brickwork you have seen for many a long day. From the archbishop's garden it seems natural to descend to the river and walk along the bank to the Old Bridge (Fig. 14). It is exactly similar in character to the cathedral, though the brickwork of its upper part rests on a stone substructure, the more able to withstand the encroaching water. Cross the bridge and turn to the left and take a survey of the garden just visited. Out of the river springs the fortified terrace wall, topped with vines, forming a suitable base for the remaining portions of the castle-like Palace which tower above it. A few colourful cottages lead the eye up to the still higher ground upon which the cathedral stands, more than half its height superbly outlined above everything else.

Fig. 17.

Like all cathedral towns, Albi has a wealth of narrow winding streets full of historical and architectural interest. In addition, it has some fine open spaces, planted as gardens for the most part, in one of which stands the Memorial Arch to the Fallen in the Great War. It is a town of contrasts, the gardens forming acceptable retreats from the blinding dust of newly developed motor traffic using a main road still rural in construction. Once a week the open square in front of the cathedral is alive with poultry—and cheese—brought in from the country for sale by animated and picturesque peasants. Pass by the same place in the afternoon of the same day and everything will be as quiet as a cathedral close, as if the poultry and the peasants had been but an enacted fairy tale. At night Albi is enchanting. You may sit at a pavement café on the main street and sip your wine to the noise of the noisiest of café bands, or you may pay court to Bacchus in the quiet seclusion of a café bower down by the river. The latter is the better thing to do, and if there happens to be a moon, please glance up at the cathedral again so that, in any of her moods, you will ever remember Albi as a town of fine colouring.

The final stage of this cross-country tour takes one from Albi, through Tessonnières, a wayside junction where one generally has to change, to Toulouse. Leaving Albi, one follows the river Tarn for a considerable distance through flat and fertile country. The absence of hills is compensated for by several views of the snow-capped Pyrenees standing up on the horizon away to the left. Entering the Department of Haute Garonne, the train leaves the river Tarn and, after crossing one or two smaller streams, joins the river Garonne at Toulouse.

I remember reading some time ago, in a book descriptive of Toulouse published towards the close of the last century, that "there is not much architectural beauty about its public edifices, they being built of brick." This is undoubtedly true of many of the modern erections, but is quite false of the original buildings from which they have been stupidly adapted. Indeed, the distinction enjoyed by many of the older buildings of Toulouse is due in no small part to a thorough understanding of the use of bricks, their shape, their colour, and their limitations as a building material. In the combined use, too, of brick and stone, the old work gives valuable lessons, just as the new work shows how coarse and clumsy such a combination, without understanding, can be.

The finest building in Toulouse is undoubtedly the church of St. Sernin. It was begun in the eleventh century and the twelfth century saw the major part of its building, and the thirteenth century its completion. In plan it consists of a long nave with double aisles on either side, transepts of about the same width and of unusual length, and a proportionate choir having an apsidal end with five projecting semi-circular chapels. Nave, transepts, and choir are all of the same generous height, the crossing supporting a fine tower. Every point in the plan is boldly expressed in the elevations, resulting in an interesting piece of grouping at the east end (Fig. 18). Here the small chapels abut against the semi-circular wall of the apse, which rises above them and is in turn surmounted by the end of the choir nave ascending to the level of the transepts, the whole being crowned by the central tower. The latter is very fine, and consists of five stories, each slightly

Fig. 18.

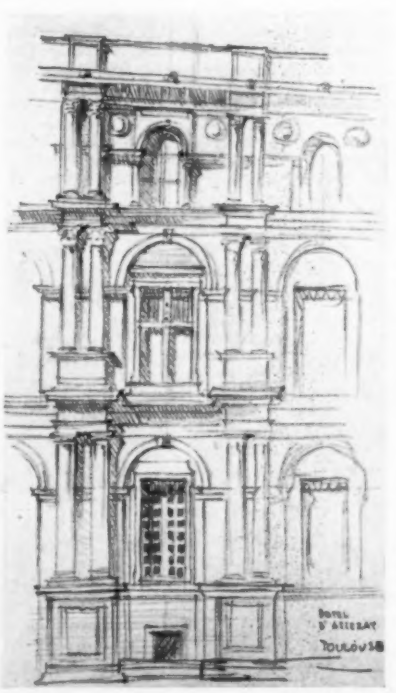


Fig. 19.—**Hotel d'Assézat, Toulouse.**

smaller in area as the tower ascends and each proportionately taller than the last. It is octagonal on plan throughout its height, and on every face has a pair of windows to each story. The windows of the three lower stories are semi-circular headed, the upper windows having triangular arches as if to prepare the eye for the transition from the rounded ground plan of the apse and chapels to the sharp point of the short steeple with which the tower is completed. Internally, the church has been spoiled by a recent coat of drab grey paint alike on walls and piers, a darker grey dado having no relation to the structure helping to confuse scale. Internally as well as externally the apse is the most interesting part of the church, though the gilded and illuminated screen around the choir is somewhat pretentious to northern eyes. A crypt under the choir contains numerous tombs and relics of no more than popular interest.

Near the church of St. Sernin is a group of college buildings surrounding the church of the Jacobins. Out of this mass of rambling brickwork rises the fourteenth-century tower of the church. Not so large as the St. Sernin tower, it is nevertheless more typical of Toulouse in character, and, without a spire, more pleasing to me in proportion (Fig. 20).

The life of Toulouse centres around the Hotel de Ville, or Capitole, as it is locally called, a sixteenth-century building much altered and enlarged. Its principal elevation is very dull, a long row of Ionic pilasters running through first and second floors, crowned by entablature and balustraded parapet, the whole standing on a rusticated ground floor. A projecting centre block crowned by a pediment carrying out-of-scale sculpture and a curly pavilion at either end completes a composition in the monotonous eighteenth-century manner. Its internal courtyards are much better, the first one containing a pleasing doorway of earlier date. The brickwork has unfortunately been repointed with a projecting grey cement joint, giving it a hard and colourless appearance.

Between the church of St. Sernin and the Capitole is the interesting little church of Notre Dame de Taur, a brick building with typical triangular headed window openings. Its gable end on the street is utilised to carry the bells of the church, thus taking on the character, in its upper part, of a bell-cote. In a side street near by is an old seminary of the late sixteenth century, at present being converted quite unsympathetically by some local man into a Government bond. Its elevation to the large courtyard at the rear is especially interesting, being executed entirely in plain and moulded brickwork. It is three stories high, each being divided by a projecting cornice supported on flat pilasters with moulded bases and caps (Fig. 17). The ground floor is an open loggia, wide semi-circular arches spanning between the pilasters, but now being filled in with glazed sashes of wretched proportion. A single bay of this courtyard wall looks crushed out of proportion, too wide for its height, but the whole wall, of fifteen bays, actually gains by the apparently bad design of its units. The same wall built in repeated bays of strictly classical proportion would doubtless look very monotonous.

Near the eastern approach to the Pont Neuf stands the Hotel d'Assézat, a much more ambitious building than the seminary, and several years older. To the street it presents a flat, though well-proportioned, stone gateway in the Henri III. manner, through which one passes into its interesting courtyard. The principal walls of the courtyard are formed of three stories of classical orders, mainly of stone (Fig. 19). Between its coupled three-quarter columns the infilling wall is of brickwork, broken by the stone surround to the window in the centre of each bay. The columns of the two lower stories are raised on pedestals, and one cannot help feeling that the top floor would have looked better so treated. The successful combination of brickwork and stonework appears to be due firstly to the use of a red-brown brick with a light grey stone having no suspicion of yellow in it, and secondly to the working of the stone to a roughish surface to be in harmony with the similar surface texture of the brickwork.

In the streets immediately to the south of the Hotel d'Assézat are many houses of the sixteenth and seventeenth centuries. Of these may be mentioned the Hotel de Massas, which has a delicate stone doorway in the brick wall of its courtyard; the Hotel de Felzins, half a century earlier in date, with a bold entrance doorway surmounted by two small windows, fairly well composed but coarse in detail; the Hotel de Clary or Hotel de Pierre, having an elevation to the street entirely in stone elaborately carved in a very French seventeenth-century way, with a courtyard of an earlier and more sober period; the Hotel de Lasbordes, whose Henri III. gallery in stone is a pleasing feature; and finally, the Hotel de Loubens, containing a fifteenth-century staircase. Near by is the cathedral of St. Etienne, a disappointing building in many styles without any coherence whatever.

The museum at Toulouse repays a visit. It occupies the site of an old Augustine convent, portions of which, built from the fourteenth to seventeenth centuries, still exist. Of these the large and small cloisters are especially interesting, though both have been liberally restored. The extensive new building of the Museum, erected in the last century by Viollet-le-Duc, looks very clumsy, and seems to take no account of the lessons in the use of brick and stone to be learned from a study of the Hotel d'Assézat, described above. The Museum contains, on the ground floor, an instructive collection of antiques, many from the immediate neighbourhood. The upper floors house an extensive picture-gallery, while on the staircase and landing are exhibited some delightful drawings and sketches, mostly of the nude.

Besides studying its historical buildings, an architect will find much else of interest in Toulouse. Down by the river is the Ecole des Beaux Arts, with a department of architecture battling with an ambitious programme modelled on Paris Beaux Arts lines. On the river are several flour mills utilising water power in apparently a very effective manner. Several canals meet at Toulouse, in a chain joining the Mediterranean with the Bay of Biscay. Their long straight lines of placid water, bordered in many instances with interminable rows of plane or cypress trees, form one of the features of the flat country around the city. Along their banks, of course, are the inevitable fishermen one sees patiently sitting all over France, never catching anything, but perfectly contented when holding a rod over a stretch of still water. Not far from the station is a memorial of brickwork, on raised ground, commemorating the Battle of Toulouse. From this point, weather permitting, one has a clear view of the Pyrenees, some of the principal peaks standing out clearly to the naked eye.

There are many places of architectural and historical interest easily accessible from Toulouse, but in the course of the tour you will already have had many temptations to prolong it beyond the allotted two or three weeks. I will not, therefore, mention any of these further possibilities. All that remains to be done is to step firmly into a *rapide* train and return to London, through Paris, in less than twenty-four hours. Your mind, not being confused by hasty visits to other districts, will then recall the more readily the versatile interest of this wayward tour from Lyons to Toulouse.

(*Concluded.*)

Hendon Town Hall.

A public inquiry into the Hendon Urban District Council's application to the Ministry of Health for sanction to borrow £60,000 for the extension of the town hall was held last week by Mr. E. Butler. There was no opposition. The present town hall was built over 30 years ago, and is so overcrowded that the medical and education departments are housed in two separate buildings.

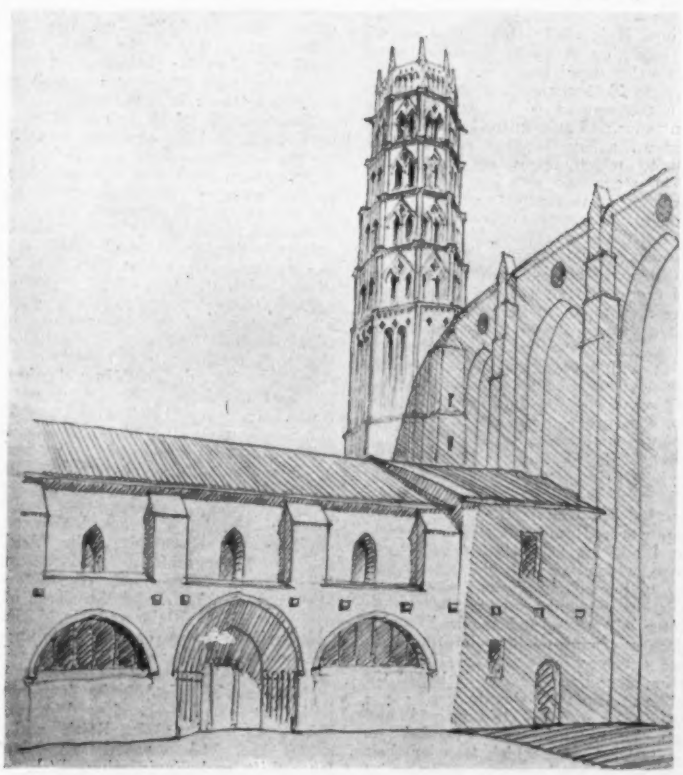


Fig. 20.—Church of the Jacobins, Toulouse.

ILLUSTRATIONS

PLATES

National Provincial Bank, Ltd., Neath.

The National Provincial Bank Branch at Neath, Glamorganshire, is built of Portland stone, and has accommodation for the bank on the ground floor with offices on the first floor. The bank fittings throughout are all in mahogany. The general contractors were Messrs. Thomas Cole and Sons, Neath, and the following were sub-contractors:—The Bath and Portland Stone Firms, Ltd., Portland stone; G. and A. Brown, Ltd., stone carving; Anselm Odling and Sons, marble paving; Deane and Beal, Ltd., heating; Geo. Wragge, Ltd., lantern lights, etc.; Thomas Cole and Sons, Neath, bank fittings.

The architects were Messrs. F. C. R. Palmer, F.R.I.B.A., and W. F. C. Holden, F.R.I.B.A., architect and assistant architect to the bank

New Chief Office for the City Police.

These buildings are being erected on the site of the old chief office, 26, Old Jewry and 14, Ironmonger-lane, at a cost of about £36,000. The main entrance is from Old Jewry, and the buildings are grouped around a courtyard. The elevations to the courtyard are to be faced with multi-coloured bricks, the main cornice being in wood. The entrance doors from the old building are to be re-used, and the old staircase from the main hall of the old building is to be refixed in the new building. The contractors for the works are Messrs. Higgs and Hill. The new building, drawings of which were exhibited in the Royal Academy this year, has been designed and is being erected under the supervision of Mr. Sydney Perks, F.S.A., the City Architect and Surveyor.

The Great Gate House, St. Albans.

An article on this building, by Mr. Cyril F. Fox, is given on page 570.

The Dominion Theatre.

This new theatre has been erected at the Corner of Oxford-street and Tottenham Court-road, and occupies the former site of Meux's Brewery. Although the site is a spacious one, it is really surrounded on all sides by adjoining property, but has exits and frontages on to all four sides. The main entrance is in Tottenham Court-road, where there is a frontage of 44 ft., but there is also an entrance and exit on to Great Russell-street and an entire frontage on to Bainbridge-street, which opens on to Oxford-street. The stage end also has an uninterrupted frontage on to a private exit.

The underground works consist of huge ducts for ventilation purposes, big enough to drive a motor-car through. These ducts reach to all parts of the building, and are connected up to the very large heating and ventilating apartment where fresh air is introduced from above the roof level more than 70 ft. away. Here the fresh air is cleansed by going through an elaborate system of cold water and then heated and driven by a huge fan to all parts of the building. In this apartment also are contained four sectional boilers, pumps and other apparatus in connection with the auxiliary heating and radiators in corridors, staircases and other places all over the building. The underground works also include the intricacies of under-stage work. Here again is the electrical machinery for lifting in sections a great part of the stage, which can be lifted and stepped up to any degree. Underground also are all the electrical rooms and rooms for bandsmen, and director of music and music libraries. Preparations are being made underground for a proposed entrance for the public from the Tube station near by, which it is hoped the L.C.C. will sanction very shortly.

The building is entirely steel framed, and the whole superstructure is carried on numerous steel columns, which transfer their load by means of immense steel grillages to the London gravel. On or about the ground level is the stage, nearly 100 ft. wide and 40 ft. deep. The opening is 50 ft. and is, of course, protected by a fireproof curtain, sprinklers, and all devices provided for the safety of the public. The stage scenery will be all worked by counterweights, and the grid is of steel. Adequate provision is made for the comfort of the artistes. A special lift conveys them to all floors, and every dressing-room is equipped with hot and cold water, heating radiators, electric light and special wardrobes, and the principal artistes' rooms have bathrooms. Bathrooms are also provided on each floor of the dressing-rooms for other artistes.

The auditorium is 105 ft. wide and 105 ft. deep, and the accommodation on the stalls floor is 1,286 seats, all comfortable tip-up seats with spacious gangways and ample room for comfort. The entrance foyer, which is intended for both stalls and dress circle, is 80 ft. long by 40 ft. wide and flanked with an open marble staircase leading right up to the back of the dress circle. The dress circle has seats for 818 patrons divided from side to side by a wide cross gangway. Here again every attention is paid to comfort. The upper circle has seats for 683 persons, also all tip-up seats, and is approached from the Bainbridge-street entrance. The entrance to the Royal box is from Bainbridge-street, and this box has special retiring rooms and spacious corridors suitable for Royal patronage.

At the back of the dress circle, intended for the use of the patrons of the dress circle, is an apartment 56 ft. long and over 40 ft. wide, and fitted with a soda fountain; this is intended to be used as a retiring room for the dress circle. Another lounge is provided at the first-floor level for the use of patrons in the front of the dress circle and the stalls. This lounge is the full width of the theatre, is over 100 ft. long and 20 ft. wide, and has a domed ceiling. It is intended also as a retiring room during intervals.

The building is well provided with saloon bars, retiring rooms for ladies and gentlemen leading to toilet-rooms, and cloak-rooms to every part of the house. Other accommodation includes an advance booking office and service-rooms; two floors of manager's offices, a board-room, lifts to the administrative offices, lounge halls, spacious corridors, soda fountain rooms, etc. Every precaution has been taken for the safety of the public. The exits and entrances are well arranged and more than adequate.

The theatre, which is one of the largest in London, is fully equipped in all respects for the largest productions. It is fitted with bioscope-box, rewinding-room, and arc lamps, so that pictures can be shown as a part of the performance if necessary. The scheme of decoration throughout the building is uniformly in the style of the late French Renaissance. The colour scheme is blue and silver, with clouded effect. The stage is lighted on the latest principle of stage lighting, battens and footlights being provided with Samiloff lighting. The exterior elevation to Tottenham Court-road is of Portland stone, especially designed, in a classic manner, for lighting effects. The elevation to Great Russell-street is of brick with stone dressings and is of simple and dignified character.

The architects are Messrs. Wm. and T. R. Milburn, of Sunderland and London. The consulting engineer for steelwork was Mr. S. G. Newstead, the consulting engineer for heating, Mr. N. Vaux, and the consulting engineer for electrical work, Mr. S. H. Munro. The consultant for decorations was Miss Cowey. The main contractors were Messrs. Bovis, Ltd., and the clerks of works were Mr. H. C. Blake and Mr. J. F. Crisp. The building was carried out under the supervision of the officials of the L.C.C., and Mr. Perkins, the District Surveyor.

Following is a list of the firms associated with the work:—London Plenum Heating Co., heating; J. Keith and Blackman Co., Ltd., ventilating plant and fans; Lift and Engineering, Ltd., counterweighting and stage lifts; Walter Macfarlane and Co., canopies; the County of London Electric Supply Co., transformers; Blackburn, Starling and Co., Nottingham, electrical installation; Sturtevant Engineering Co., Ltd., vacuum cleaners; Battiscombe and Harris (1927), Ltd., fibrous plasterwork; Comyn, Ching and Co., Ltd., bronze handrails and ironmongery; Whitehead and Co., Ltd., marble work; Pixton and Co., Ltd., seating, etc.; London Spray and Brush Painting Co., Ltd., painting and decorations; National Radiator Co., Hull, boilers, radiators and heating batteries; Wm. White and Co., main stage switchboard; the Strand Electric and Engineering Co., cyclorama switchboard; County of London Supply Co. and Reyrolle, Ltd., Hebburn-on-Tyne, main intake, Frigidaire, Ltd., soda fountain; G. Palmer and Co., automatic cinema shutters; Peyton, Hoyland and Barber, Birmingham, and General Electric Co., Ltd., London, electric light fittings; Hewittic Electric Co., Walton-on-Thames, rectifiers; Sir Jas. Laing and Co., Ltd., Sunderland, ventilating grilles; Philips, Ltd., Neon signs; K.M.F. Manufacturing Co., direction signs; Relay Automatic Telephone Co., Ltd., automatic telephones; Thornton-Smith and Co., carpets and furnishings; Pickerings, Ltd., Stockton-on-Tees, lifts; Lewis Berger and Sons, Ltd., paints; A. D. Dawnay and Co., Ltd., structural steel; Independent Sprinklers, Ltd., sprinklers; Hoffman Sprinkler Co., Ltd., hydrants; F. A. Norris and Co., fire-escape stairs; Hope, Ltd., Birmingham, lantern lights and domes; F. Burkitt, fireproof curtain; Crittalls, Ltd., Braintree, bronze and steel windows; B.R.C. Co., Stafford, reinforcing bars; Empire Stone Co., Ltd., cast stone; F. J. Barnes, Ltd., Portland stone; Diespeker and Co., Ltd., terrazzo; Trussed Concrete Steel Co., Ltd., hy-rib reinforcement; the Korkoid Decorative Floors, Ltd., floor coverings; the Expanded Metal Co., West Hartlepool, expanded metal; Gilbert Seale and Son, Ltd., stone carving; Aerocrete Units, Ltd., aerocrete casing; Sika-Francois, Ltd., waterproofing; Lockerbie and Wilkinson (Birmingham), Ltd., cloakroom fittings; Pinchin, Johnson and Co., Ltd., paints; Shanks and Co., Ltd., sanitary fittings; Art Metal Construction Co., Ltd., steel cupboards and shelving; Val de Travers Asphalte Paving Co., Ltd., asphalt; Hollis Bros. and Co., Ltd., oak flooring; F. Braby and Co., Ltd., ventilators; the Veronese Plastering Co., solid and fibre plaster; Blackmore and Co., galvanised handrails; John Evans and Co., external plumbing and drains; Matthew Hall and Co., Ltd., internal plumbing; A. Goldstein and Co., glazing and copper light glazing; Carter and Co., Ltd., tiling; St. Mary's Wharf, Ltd., excavations; Scaffolding (Gt. Britain), Ltd., and Stephens and Carter, Ltd., scaffolding; Malcolm Macleod and Co., Ltd., cast steps; Holborough Cement Co., Ltd., cement; St. Mary's Wharf, Ltd., aggregates and sand; London Brick Co., Fletton bricks; Eastwood and Co., stock bricks; Sneyd Colliery Co., glazed bricks; H. C. Parker and Co., facing bricks; J. H. Sankey and Co., partition blocks; Aston, Grant and Co., deal flooring; W. W. Howard and Sons, teak flooring, etc.; Redalon, Ltd., "Redalon" liquid.

"Forester's Cot," Walton Heath.

The Tudor half-timber style is here effectively employed for a large modern house, the ground-floor accommodation of which is indicated on the diagrammatic plan given with the drawing. Mr. Briant Poulter, F.R.I.B.A., is the architect.

Christchurch (N.Z.) Art Gallery Competition.

We illustrated in our last issue the winning design in this competition, by Mr. W. F. Armstrong, A.R.I.B.A. We give this week the second premiated design, by Mr. Alexander S. Reid, A.R.I.B.A. Mr. S. Hurst Seager, F.R.I.B.A., was the assessor.

A Licensed House, Reading.

This licensed house has been built for Messrs. Fergusons, Ltd., of Reading, to re-

(*Continued on page* 571.)

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R.A. Exhibition, 1929.

NATIONAL PROVINCIAL BANK, NEATH.

Messrs. F. C. R. Palmer and W. F. C. Holden, FF.R.I.B.A.,
Architect and Assistant Architect to the Bank.

R.A. Exhibition, 1929.

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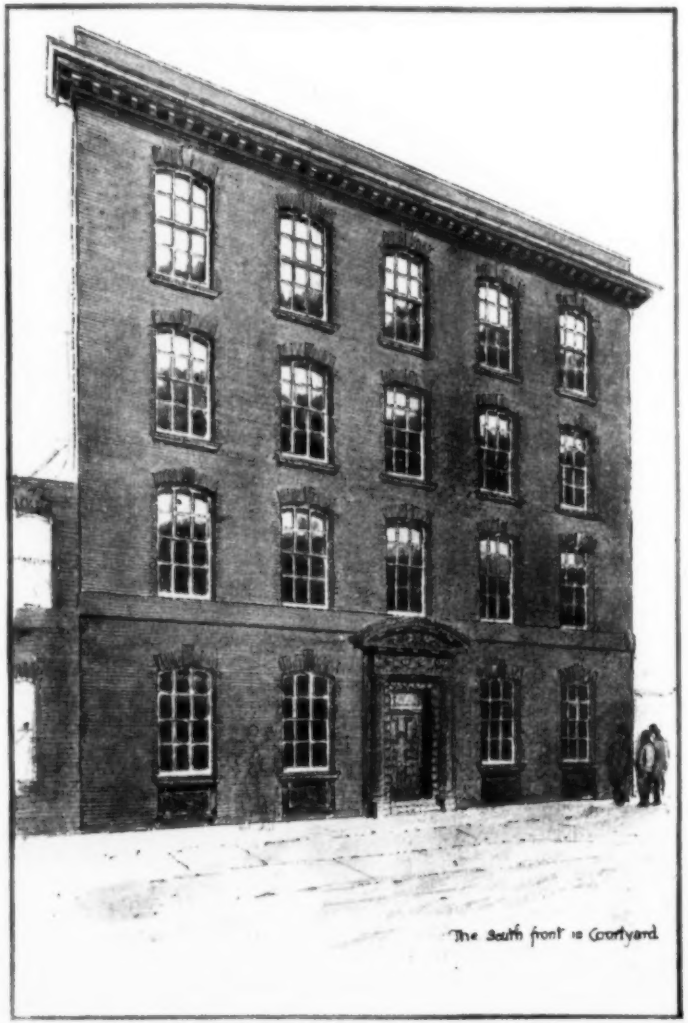
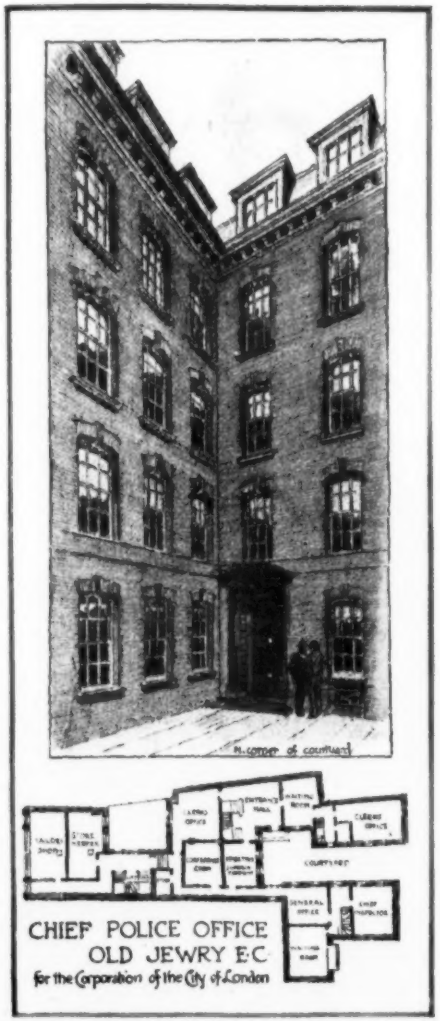




R.A. Exhibition, 1929.

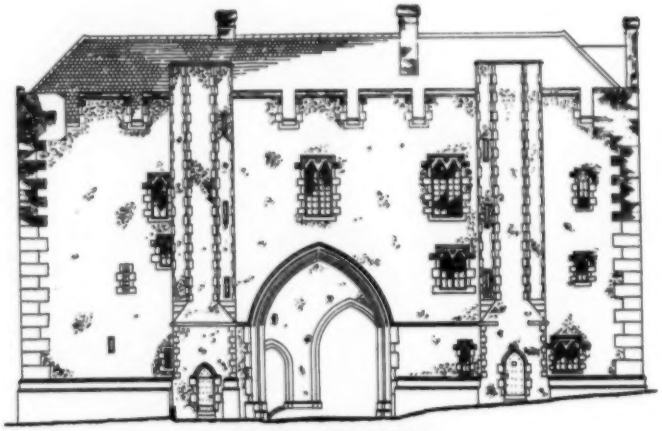
NEW CHIEF OFFICE FOR THE CITY POLICE, OLD JEWRY AND IRONMONGER LANE, E.C.

Mr. Sydney Perks, F.S.A., City Architect and Surveyor.

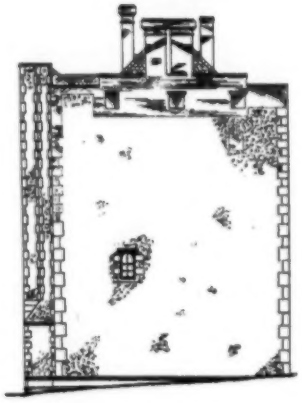
OLD MONASTERY GATEHOUSE · S. ALBANS.

NOW PART OF S. ALBANS SCHOOL

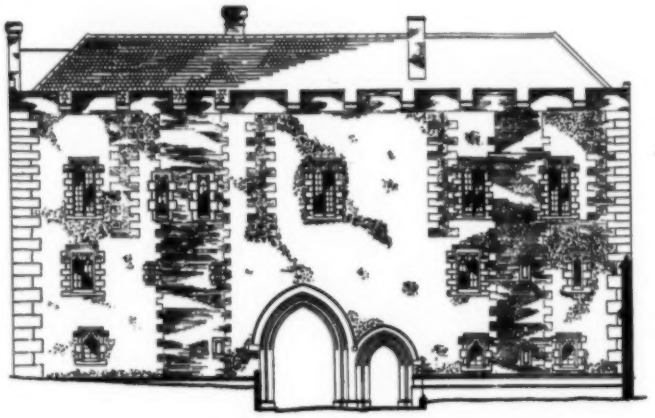
CIRCA A.D. 1361



SOUTH ELEVATION



EAST ELEVATION



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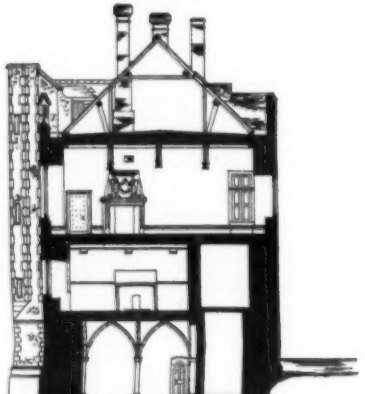

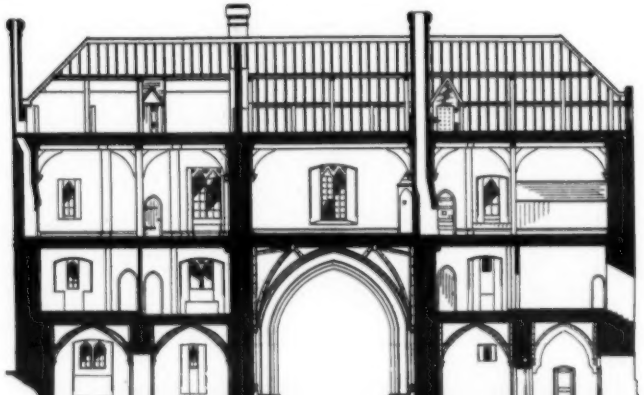

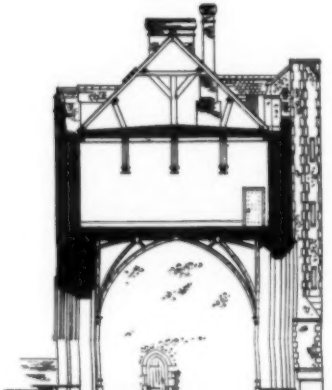

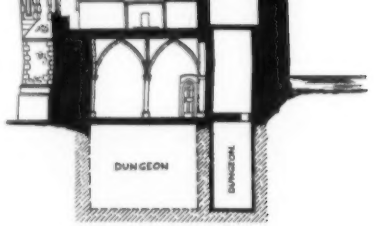

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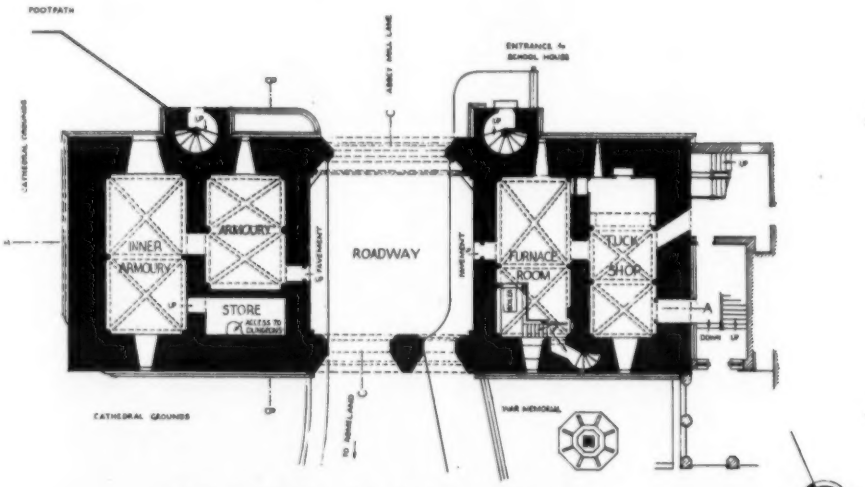
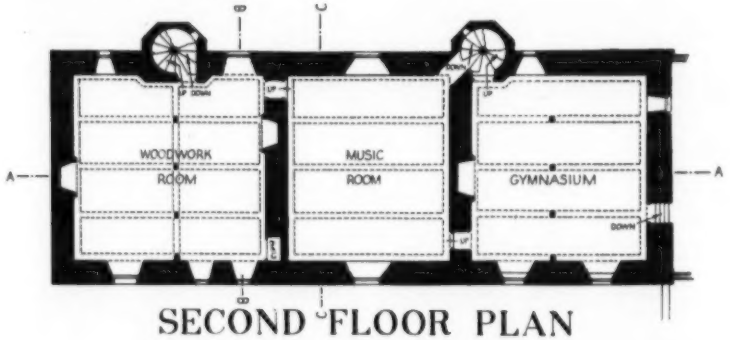
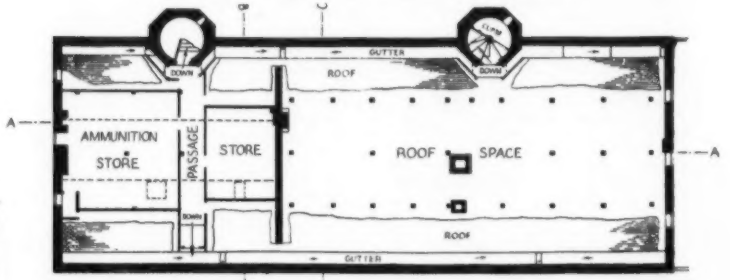


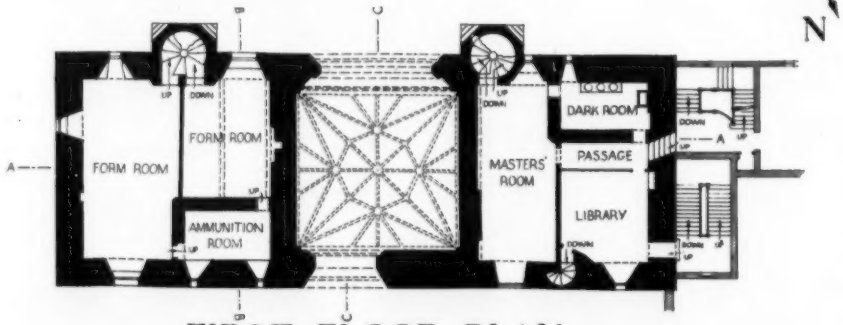
GROUND FLOOR PLAN



SECOND FLOOR PLAN



ATTIC FLOOR PLAN



FIRST FLOOR PLAN

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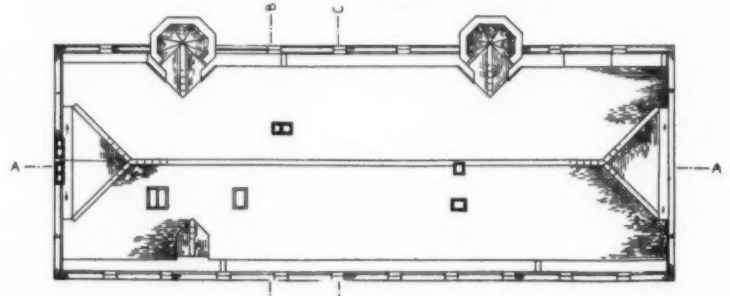

ROOF PLAN

10 5 0 10 20 30 40 50 60 70 80 90

Measured and drawn by Messrs. Cyril F. Fox and E. Gerald Edwards.

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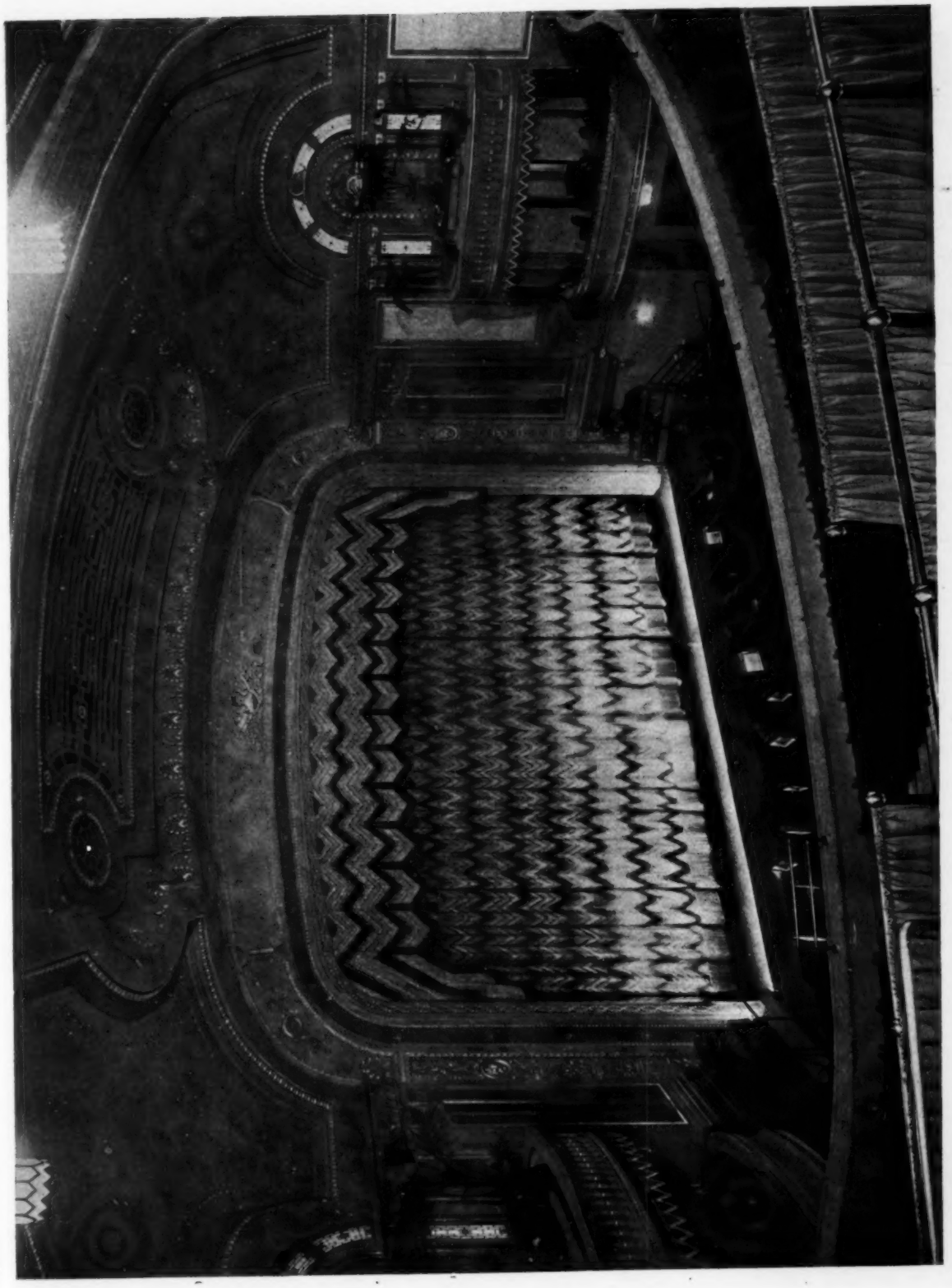

The Dominion Theatre, Oxford Street and Tottenham Court Road: Auditorium from Circle.

MESSRS. WILLIAM AND T. R. MILBURN, FF.R.I.B.A., Architects.

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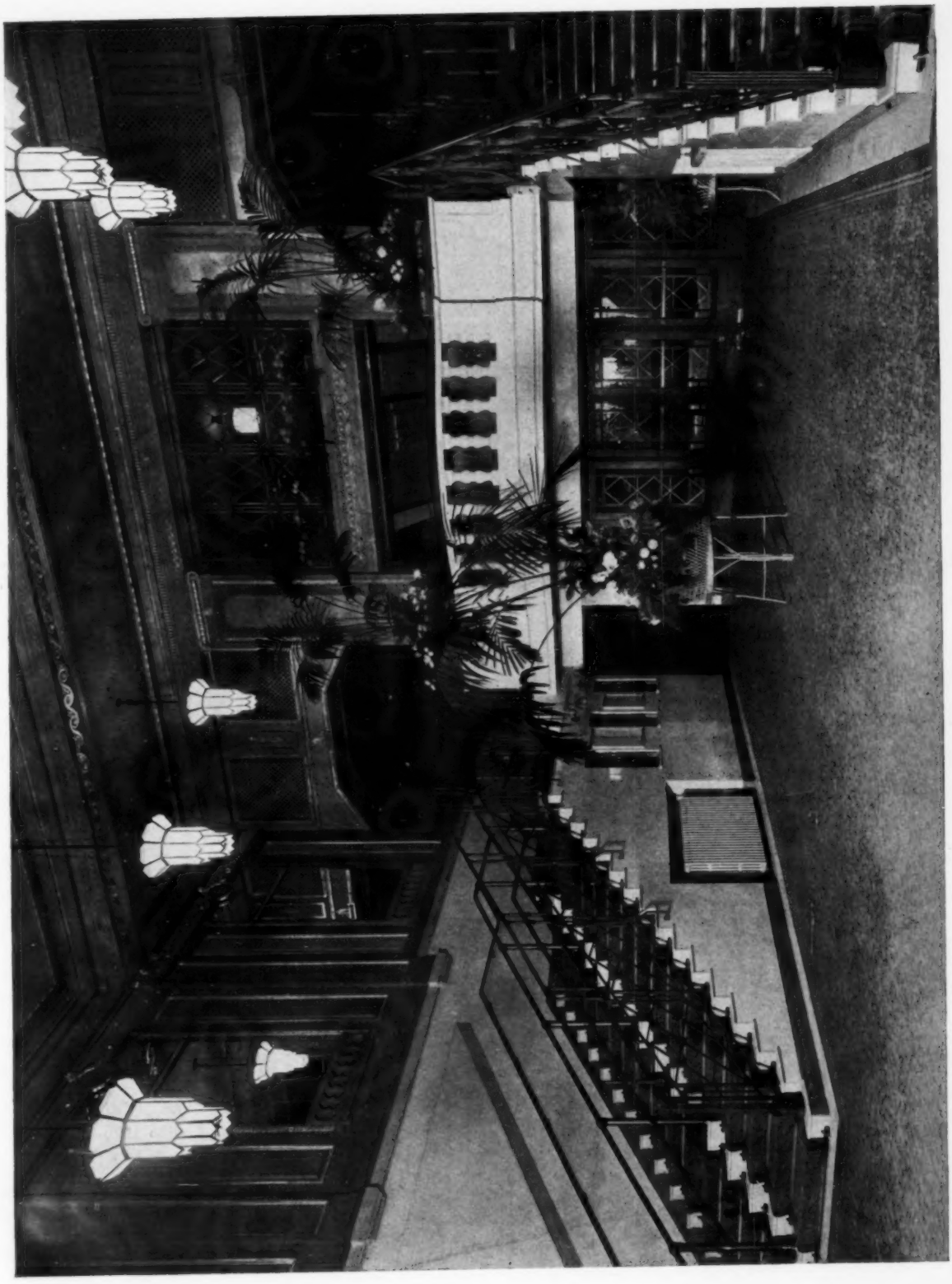

The Dominion Theatre, Oxford Street and Tottenham Court Road : Entrance Foyer.

Messrs. William and T. R. Milburn, FF.R.I.B.A., Architects.

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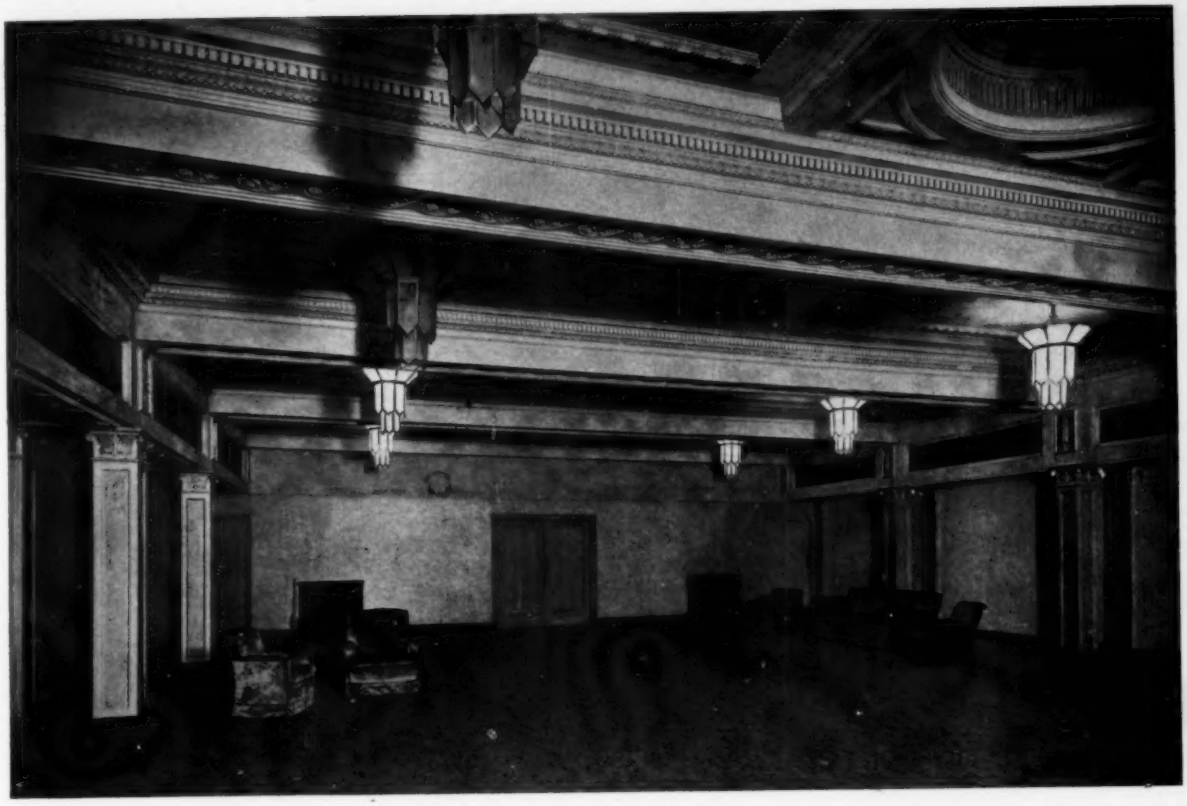
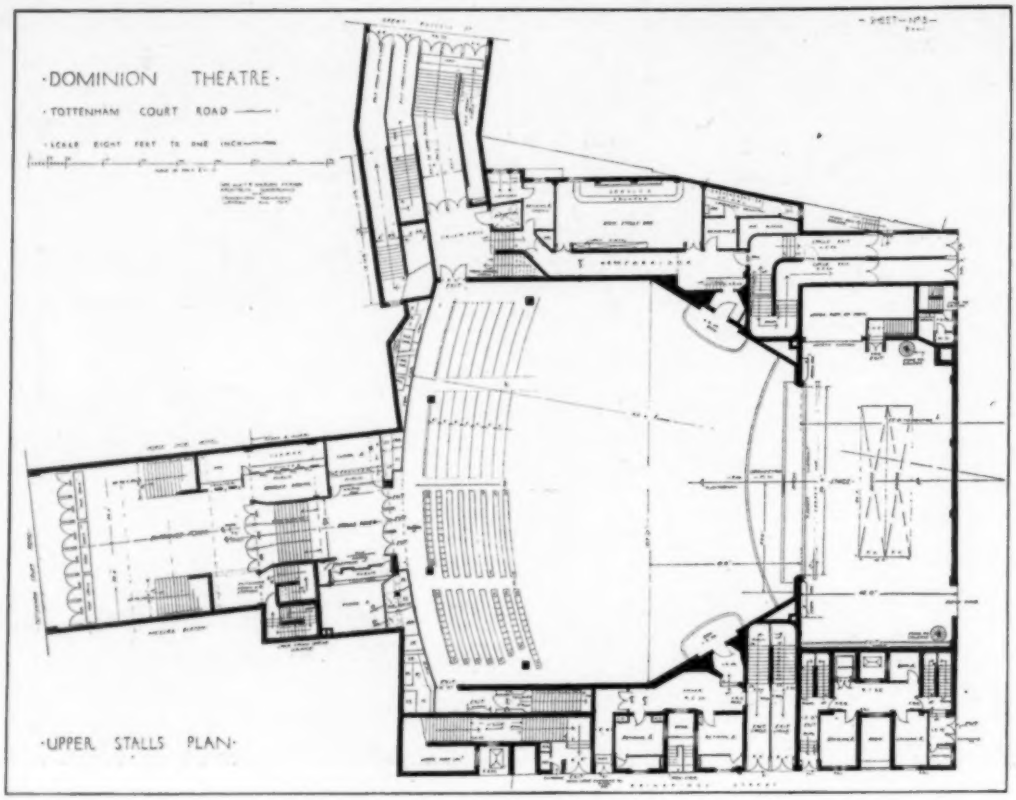


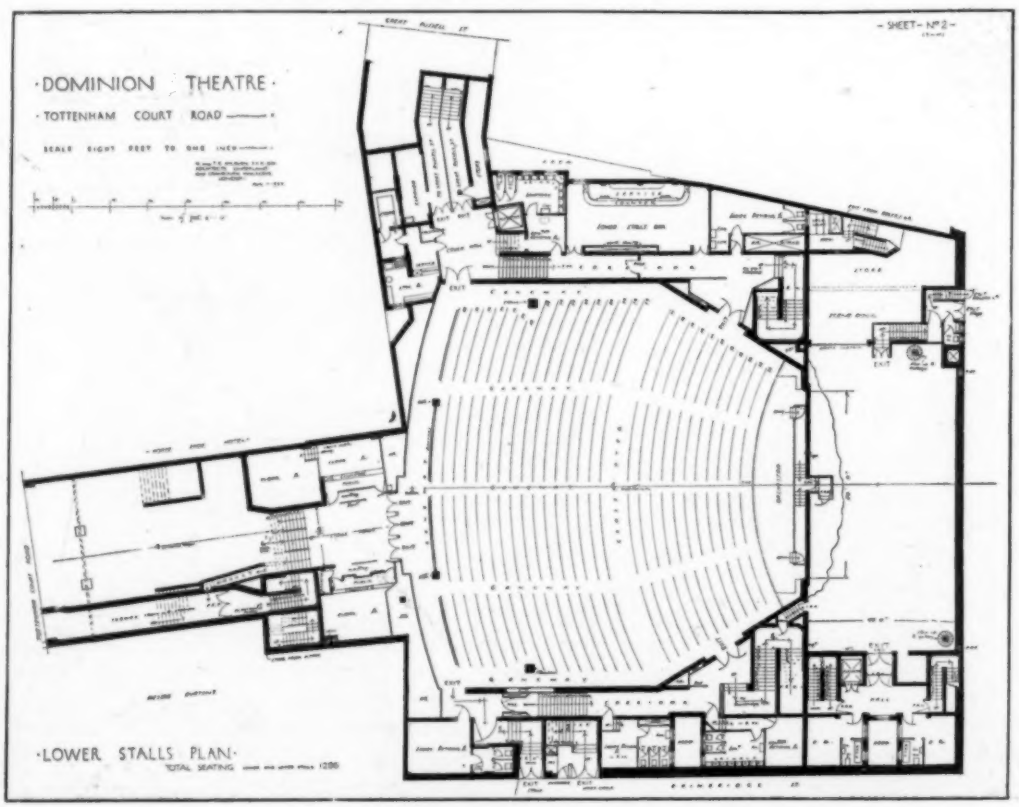
Circle Lounge.

Lower Circle Lounge.

The Dominion Theatre, Oxford Street and Tottenham Court Road.

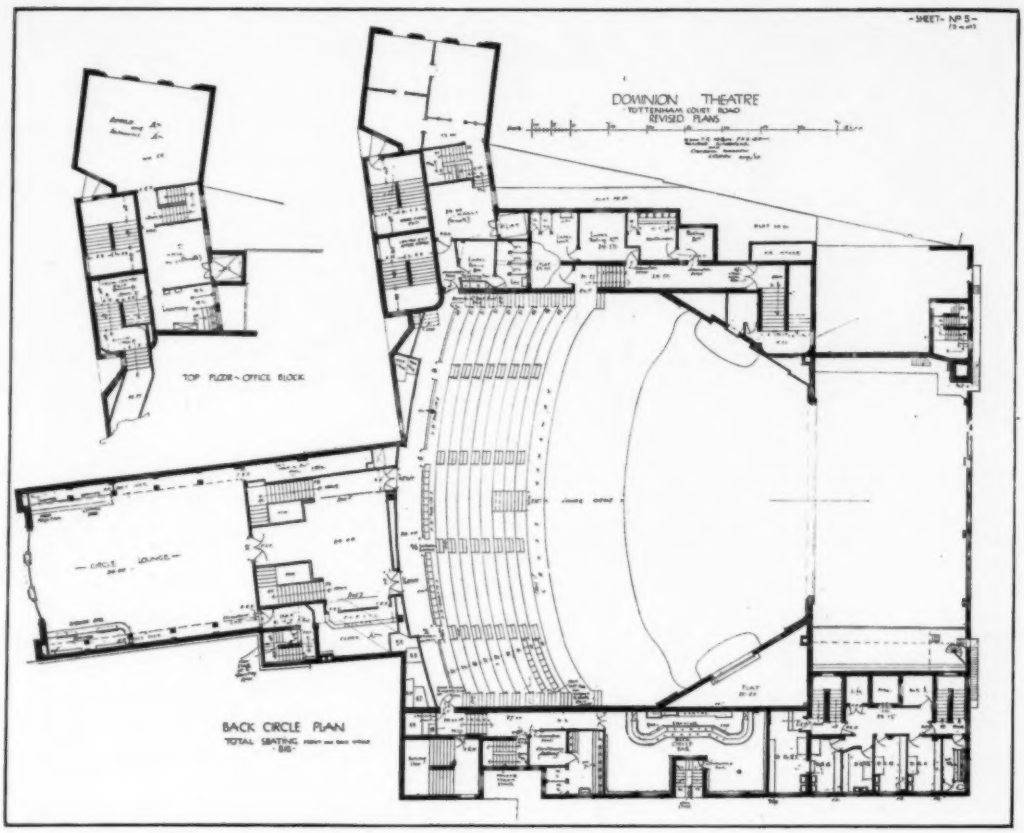
Messrs. William and T. R. Milburn, FF.R.I.B.A., Architects.

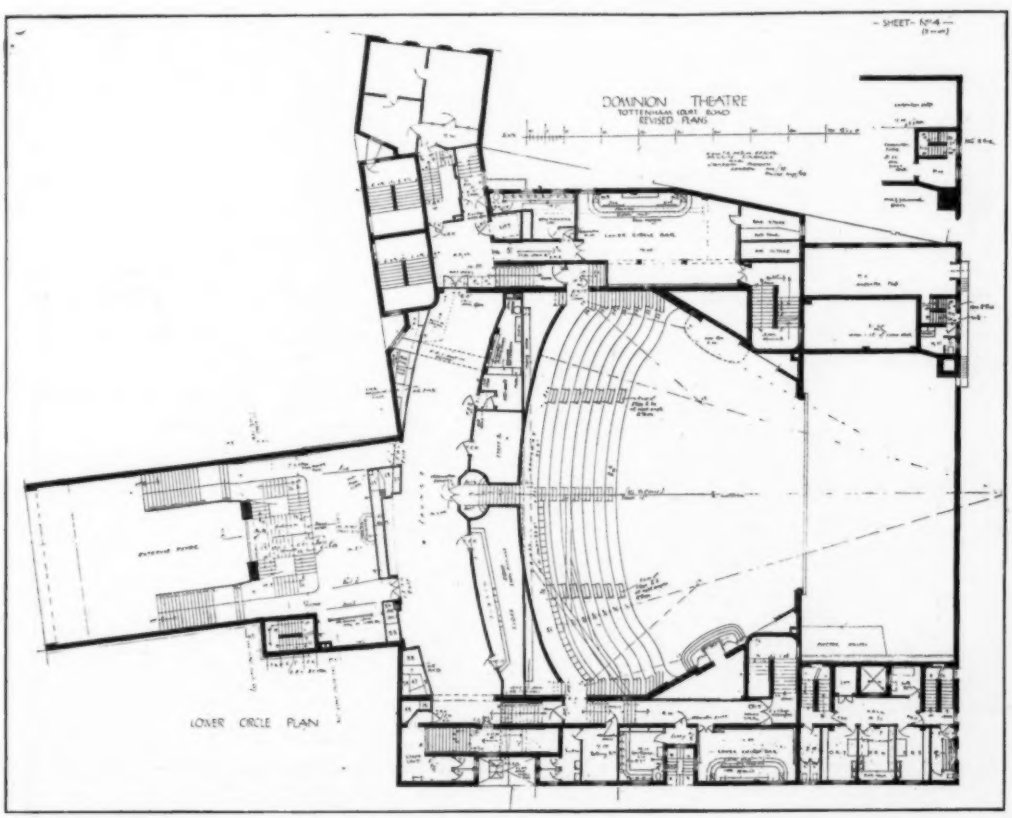




The Dominion Theatre, Oxford Street and Tottenham Court Road.

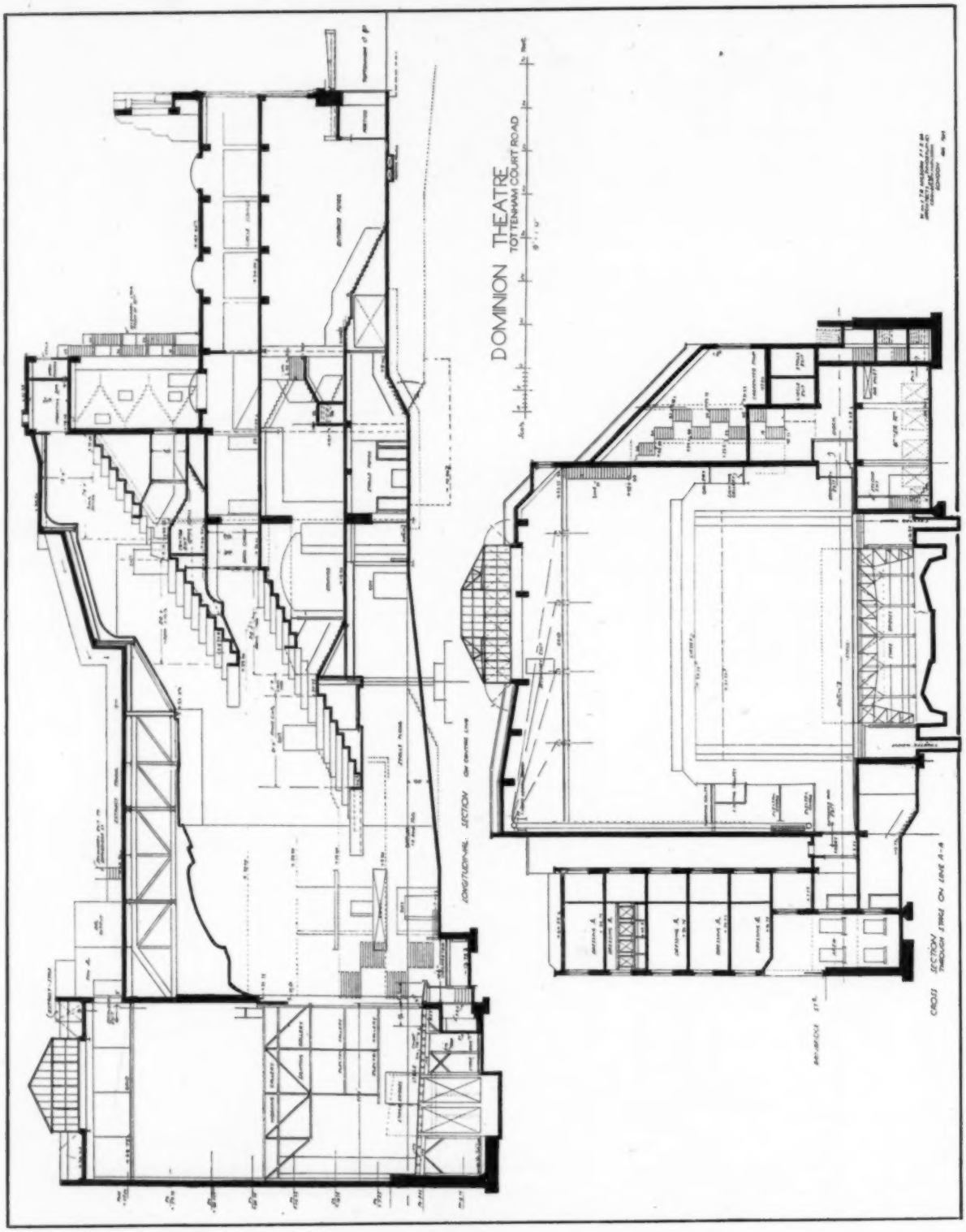
Messrs. William and T. R. Milburn, FF.R.I.B.A., Architects.





The Dominion Theatre, Oxford Street and Tottenham Court Road.

MESSRS. WILLIAM AND T. R. MILBURN, FF.R.I.B.A., Architects.



The Dominion Theatre, Oxford Street and Tottenham Court Road.

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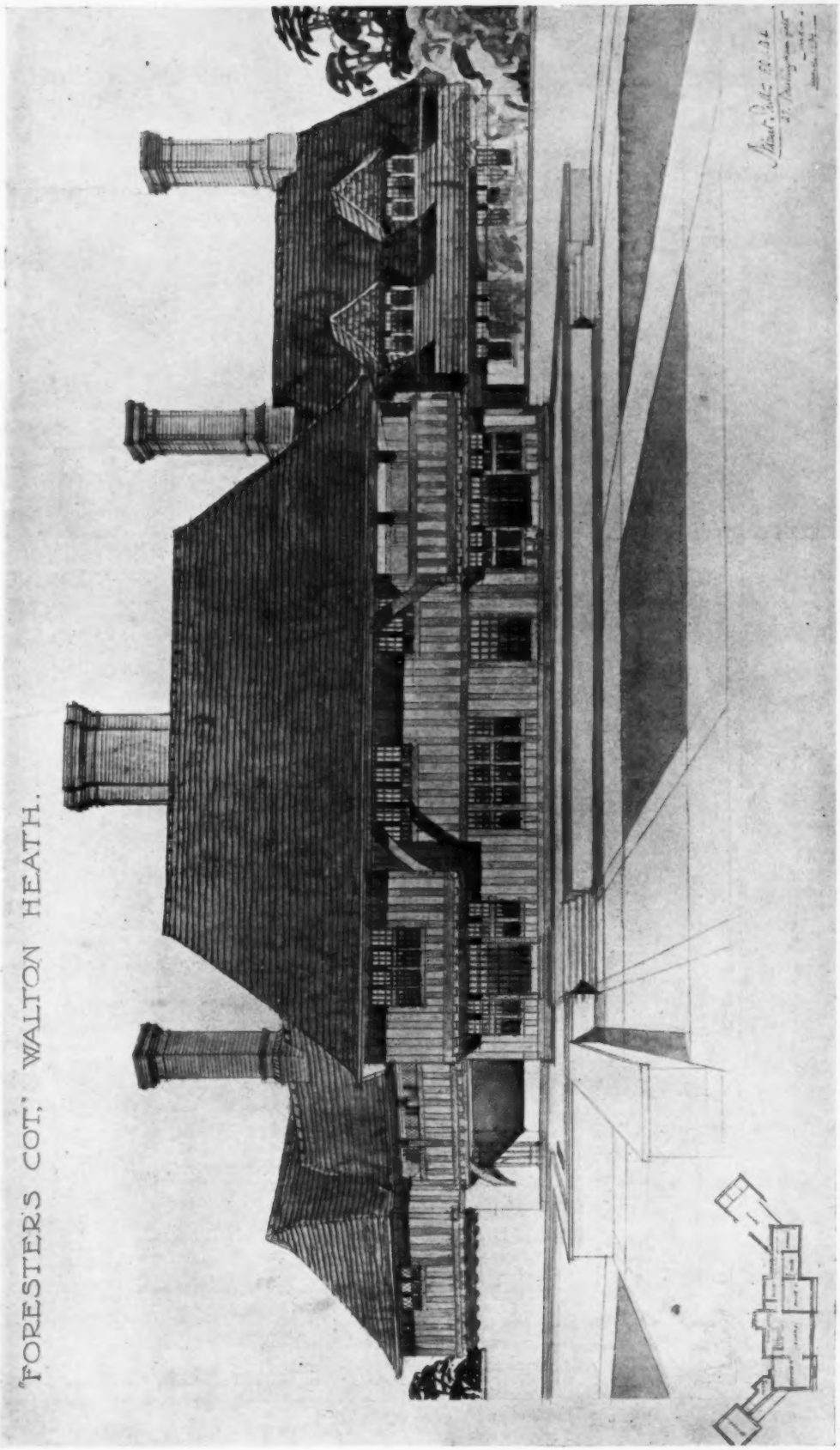
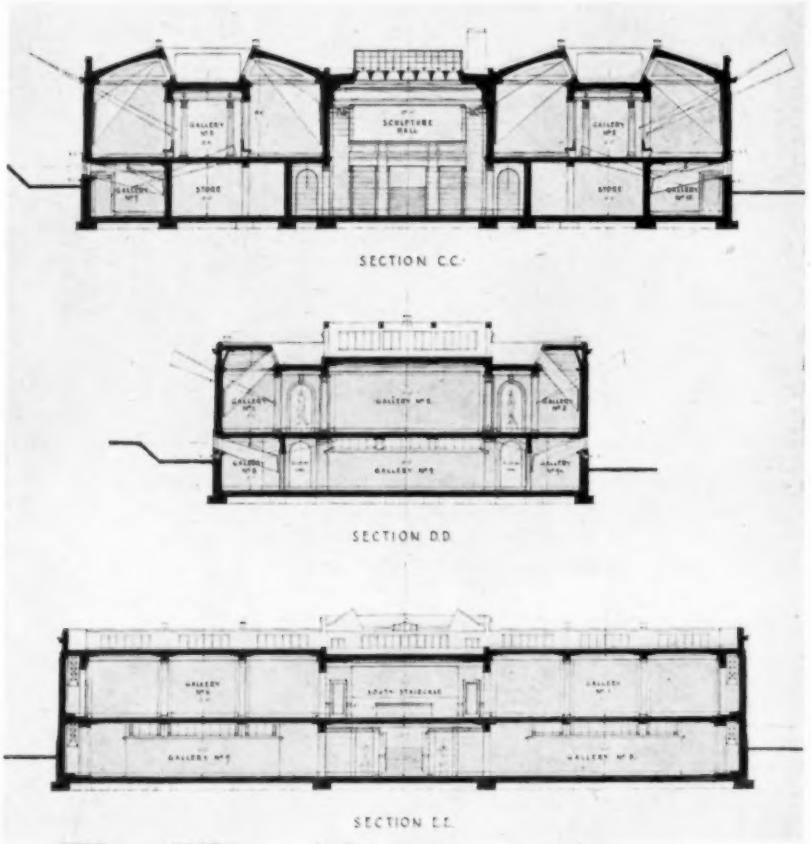


'FORESTERS COT,' WALTON HEATH.

Mr. Briant Poulter, F.R.I.B.A., Architect.

The Dominion Theatre, Oxford Street and Tottenham Court Road.
Messrs. William and T. R. Milburn, FF.R.I.B.A., Architects.



Competition for Proposed Art Gallery, Christchurch, New Zealand: Second Premiated Design.

By Mr. Alexander S. Reid, A.R.I.B.A.

Competition for Proposed Art Gallery, Christchurch, New Zealand: Second Premiated Design.

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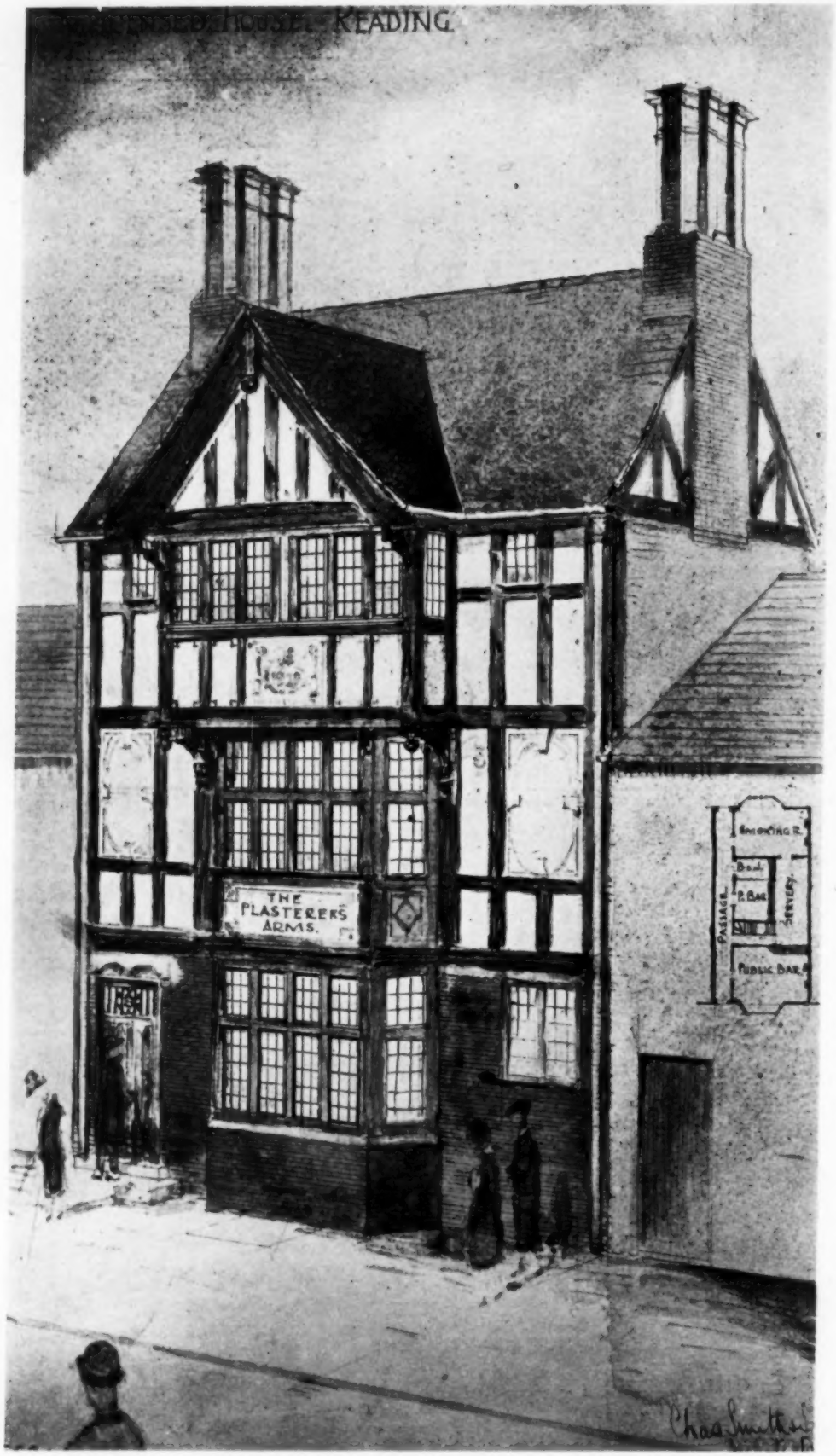
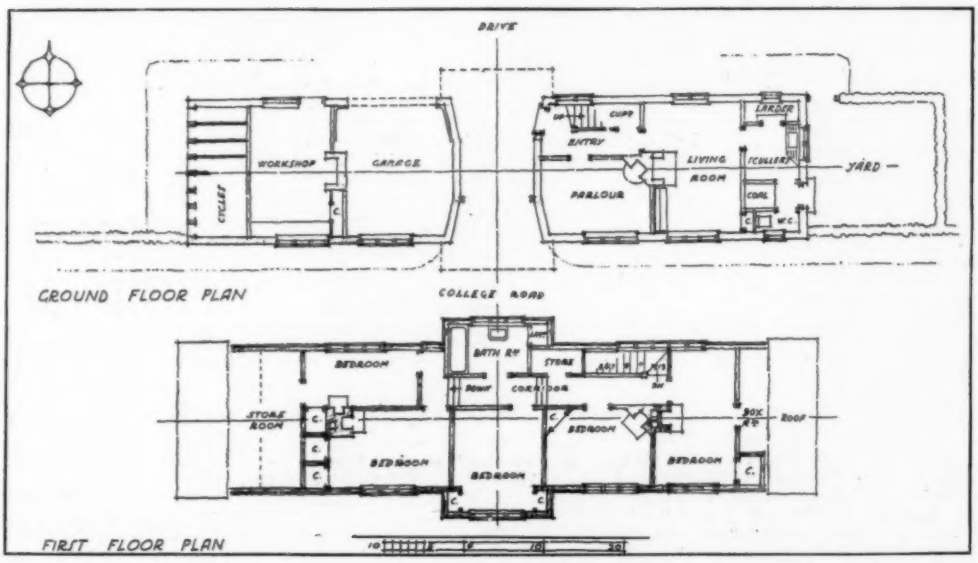


A Licensed House, Reading.

Messrs. Charles Smith & Son, F. & A.R.I.B.A., Architects.

R.A. Exhibition, 1928.



Proposed Entrance Lodge, Missionary Guest Houses, Selly Oak, Birmingham.

Mr. Arnold Silcock F.R.I.B.A., Architect.

MORE GREEK STUDIES—VIII

By W. R. LETHABY.

THE HELLENISTIC TEMPLE AT EPHESUS.

When the large volume on the Crœsus Temple was published by the British Museum in 1908, we were told that "it is proposed in due course to issue a second volume dealing with the rest of the material, and particularly with the remains of the Hellenistic temple."

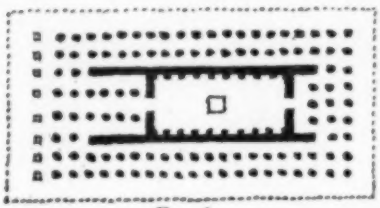


Fig. 1.

In view of such a work, it is desirable that all details may be discussed in advance, so that it should, so far as possible, be accurate and final when it appears.

The later building was like the Crœsus temple in plan, except that it may have had a third row of columns on the façade, while the earlier work may have had two only. And it was raised high on a great platform. Already, in 1908, I suggested that the naos was an open court as at Miletus. This view is confirmed by what has been found at the great temple of Samos.

In his first description of the temple (1877), Wood assumed that the platform was surrounded by steps rising continuously for the whole ascent. In his revised account in the R.I.B.A. *Journal* he stated definitely that the peristyle was surrounded with three steps, which were on a platform or landing reached by ten steps. The lowest step around the great platform was 239 ft. 4 in. from north to south, and its top step, forming the edge of the intermediate landing, was 206 ft. in the same direction. The length of the platform was not discovered, but Wood thought it might have been about 453 ft. As the height, 9 ft. 5½ in., to the peristyle, was only about 4 in. less than 10 Greek feet, and the weight of the structure had probably caused some settling down, we may suppose that was the elevation intended. Pliny gives the dimension of 215 ft. as that of the width of the whole temple, and this almost exactly agrees with the width of 206 English feet. The average value of the foot used in Asia Minor seems to have been about 11.60 inches. At this scale, Pliny's 215 ft. would be 207 ft. 10 in., instead of 206, as estimated by Wood. The agreement is so close that we may accept with greater confidence Pliny's statement of length, especially as it again agrees very closely with what Wood thought probable.

I dealt before with the probability that the temple itself was set out on squares of

Fig. 2.

20 Greek feet, which gave nine columns in a row at the back, and that there were three rows of eight columns at the front of the temple (*The Builder*, 1920). This arrangement brings the number of columns to 117, which approximates to Pliny's statement that there were 127 (cxxvii might have been written for cxvii) (Fig. 1). At Samos the great temple had three rows of columns both front and back. In front each row had eight, and at the back each row had nine; the pronaos was very deep and had many columns. It thus resembled Ephesus in these respects, and, further, the naos or sanctuary seems to have been entirely open to the sky (see plan in Professor Robertson's *Handbook*). The Zeus temple at Athens probably had an open court, Vitruvius says it was hypæthral; this, again, had three rows of columns at the ends of the temple. Mr. Dinsmoor, in his recent re-examination of the subject, accepts the 117 columns for the exterior of the temple, but adds internal columns. My belief, however, is that the sanctuary was an open court, with the possible exception that there may have been rows of columns across the ends of the court, or even a continuous cloister walk. The wall of the open sanctuary was about 6½ Greek feet thick. Some of the facing stones are in the Inscription Hall at the Museum. They are long blocks with slightly sunk margins, in courses about 20 in. (1⅔ Greek feet?) high. The stones of the old temple were about the same height, and so were the wider courses of the temple of Priene, also in the Museum. Wood shows the stones of Ephesus all laid as stretchers. The three stones in the Museum are about 5½, 6½ and 7 ft. long (Fig. 2). The walling must have been of the type of that of the temple at Ancyra, illustrated by Texier, the blocks being all of one height, but varying a little in length. The wall facings were probably the same in the interior as on the outside; evidence shows that it was so in the Crœsus temple, and this is one of the reasons which convince me that the sanctuary was entirely open to the sky. The analogy with the great temples of Samos and Miletus,

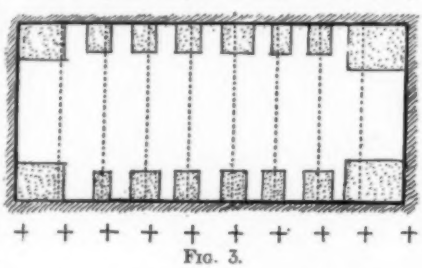


Fig. 3.

one earlier and the other later than the Hellenistic temple at Ephesus, is almost conclusive. At Miletus there were large Corinthian pilasters ranged along the internal faces of the walls.

Now Wood found within the sanctuary at Ephesus several masses of "rubble masonry," which, he thought, were "the foundation piers of a church or other large building . . . commenced within the cella some centuries after the destruction of the Temple. . . . I found the whole of these piers with the impression of the cella walls on them, and this allowed me to obtain the exact width, with other particulars, for the completion of my plan." The "cella walls" mentioned here were those of the Crœsus temple.

Again, he describes the "foundation piers of the church thrown in against the cella walls." In removing these "we found a great number of fragments of an archaic frieze . . . a Greek inscription, a small archaic head, and above all a magnificent lion's head, which was doubtless one of the heads of the last temple" (p. 259). The archaic fragments are further referred to as "upwards of one hundred" (p. 261). These "foundation piers of the church" went down to the level of the Crœsus pavement (p. 263).

Wood's plan shows how these foundation piers were disposed along the internal walls. They are not of a kind which seem suitable for a church. It would be remarkable, moreover, if they were Christian, that they should be built up from the Crœsus pavement level and contain so many remnants of archaic sculptures. The piers differ in size, but they seem to be spaced so as to divide the interior into nine equal bays (Fig. 3). When the length is so divided it is found that the resulting divisions are almost exactly the same as the external columniations, the spacing of which is shown by the crosses in the plan (Fig. 3). Transferring this to a complete plan (Fig. 1) and comparing the result with Miletus, where again the inner and outer spacing was similar in dimension but not in the same lines, we obtain an

Fig. 4.

arrangement which suggests that there may have been internal projections or pilasters at Ephesus. The rubble foundation piers appear to be called "Byzantine concrete" in *Excavations* (1908), but I do not know that their late date has ever been demonstrated. Concrete was used in the Hellenistic age.

At the Museum is a quadrant of a base of different profile from the others; it was part of a column or semi-column about 5½ ft. in diameter, that is, nearly the same size as the inner columns of the peristyle. It seems probable that it belonged to a semi-column, for it is more likely that a semi-circle would be divided into two than a full circle into four. Possibly an examination of both joints might reveal some difference between them; in the one which is exposed there is a large cavity for a stone dowel about 4 in. square. Now the profile of this base is practically a duplicate of that of the bases of semi-columns set along the interior wall of the temple at Tegea. In Fig. 4 the larger base is that of Ephesus, the smaller that at Tegea. The semi-columns at Tegea were Corinthian, and this base at Ephesus must be Corinthian also. As will be seen later, there are many close resemblances between details at Tegea and Ephesus, and I am led to think that both had similar semi-columns on the internal walls.

The Order.

At Ephesus, according to Pliny, 36 of the columns were sculptured; these might be symmetrically distributed in several ways (Fig. 5). Again, it is stated that the

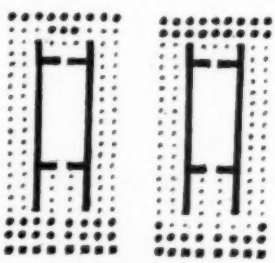


Fig. 5.

columns were 60 ft. high, and this seems to be confirmed by the use of the unit of 20 ft. and the probability that those of the earlier temple were 40 ft. high. Wood gave the height for the Hellenistic temple as 55 ft. 8¾ in., which looks very accurate, but he had no exact data to go on. His dimension is nearly 58 Greek feet, which approaches Pliny's figure. The diameter of the columns appears to have been 6½ Greek feet, and 60 ft. would have been about 9½ diameters, which is a fair average ratio.

In 1908 I offered a restoration of the en-

tablature, showing that, like the order of the Temple at Priene, which it closely resembled in details, it could have had no frieze. This is now generally accepted. The architrave or epistyle, was four Greek feet in depth; two egg-and-tongue courses seem to have been 1¼ and 1½ ft., and the great cymatium 2¼ ft. If we allow a foot each for the lost corona and dentil courses we get a total of 11 Greek feet. This seems a minimum: possibly, considering the great spans of the front, the entablature was 12 ft., or

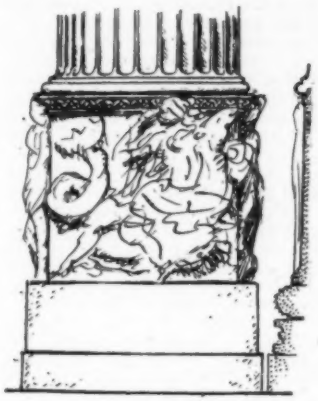


Fig. 6.

one-fifth the height of the column. I suggested that the finely sculptured cymatium might be restored by comparing it with the similar but much inferior gutter front of Priene. More recently additional pieces have been associated at the Museum with the main fragment, and the conjecture confirmed. The length of one stone of the cymatium, as now set up in the museum, is 6 ft. 1½ in. This is probably too much, as the normal columniations of the flanks were 17 ft. 1½ in., and the gutter stones were probably one-third of the dimension. The side portions could easily be brought closer together; indeed, the right-hand portion, as restored, seems to be a little longer than the left, the length may well have been about 5 ft. 9 in. The jaw of the lion's head, as fixed, is a few inches below the bed of the gutter. This would not be economical masonry in dealing with such great blocks.

Fig. 7.

The ceilings and beams over the pronaos, posticum and peristyle must have been of wood, like the similar parts of the temples at Magnesia and Teos.

In the Museum is a stone which looks as if it came from a pediment (1232), and some medals which represent the temple show pediments.

Pedestals.

The band or dado of reliefs around the columns, making what are known as the sculptured drums, had been a remarkable feature of the Crœsus temple. In continuing the tradition at the Hellenistic temple the dado was in some cases on square masses which formed what we call the sculptured pedestals. This variation may have arisen from the desire to represent big compositions like the Victories leading animals and the Nereids. Oxen were sculptured on the square antæ of the Crœsus temple, and these may have been the prototypes of the "pedestals." It is probable they were thought of as bottom sections of the columns enlarged to take big sculptures rather than as pedestals proper supporting complete columns. Besides the difficulty of bending large single subjects around a drum, other points in favour of this view are: the smallness of the capping mould of these masses, and the way in which the sculptures come up to the top of this capping, interrupting its continuity (Fig 6). The pedestals were square "drums."

From some of the fragments of the pedestals one is likely to get the impression that the heads of the sculptures must have been below an unbroken capping moulding. The great figure of Herakles, which obviously rises to the very top of the pedestal, looks like an exception. Closer scrutiny, however, shows that most of the heads must have covered the capping moulding. The figure of Artemis on another side of the same pedestal as the Herakles requires the full height. So did one of the Nereids and a hippo camp. On the first pedestal at the Museum the attachment for the neck of a female figure shows that the head must have risen to the top and have been in full relief (Fig. 7).

The suggestion seems confirmed that these were not, properly speaking, pedestals, but enlarged parts of the columns analogous to the drums. They may, however, be the prototypes of pedestals. Large pedestals under

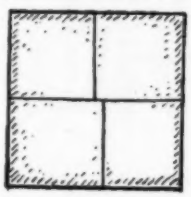


Fig 8.

columns which seem to have been prepared for sculpture have been found at Sardis, but these were considerably later in date. The pedestals at Sardis were two only, under columns of the inner row of the portico. The authors of the account of the Sardis excavations suggest that the Ephesus "pedestals" may have been in a similar position, and this view has been adopted by Mr. Dinsmoor. The places where the Ephesus blocks were found, however, point to their having occupied an outward position of the west front. Wood thought that one had "formed part of the north-west angle of the temple" (that is, of its frieze, as he supposed), while another, he suggested, was "part of an altar which may have stood on the platform outside the temple." Thus it appears that they were even in advance of what he thought was the line of the façade; that is, in a position which would agree with the theory that there was a third row of columns at the west front (Fig. 1). It would be difficult for me to believe that at Ephesus the most important sculptured masses were put under second-rank columns which had much less weight to bear—presumably only a wooden roof—than the outer columns. The Sardis blocks were true pedestals under columns which were complete with their bases and of smaller diameter than the others. Regarding the association of sculptured pedestals and drums, the best hypothesis seems to be that the pedestals were only on the façade or in the outer rows of front and back, and that the sculptured drums ranged with them (Fig. 6). Professor Robertson, who has considered the point and agrees, adds: "Other schemes, however, are defensible; for instance, all the carved drums may have rested upon square pedestals or the pedestals may have been confined to the porch or porches on the rather slight analogy of the temple of Artemis at Sardis." The latter possibility has just been discussed. By the former alternative the quantity of sculpture would be doubled and square pedestals would have been required for inner as well as for the outer rows of columns; moreover, medals which represent the temple indicate only one tier of sculptures on the columns. On reconsidering the evidence I conclude that the

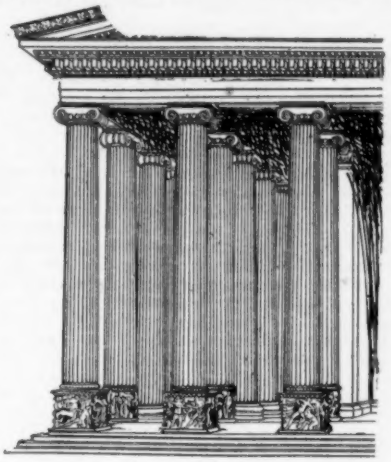


Fig. 9.

sculptured pedestals were placed only at the outer row of columns of the west front. (Fig. 9.)

It appears from the sculptured masses at the Museum that the cubical blocks of Ephesus were each made up of four stones set on their ends. In the catalogue we are told that there is a circular line representing the setting of a column on the top of two pedestal blocks and in one case there is said to be a dowel hole at the centre. One stone, at least, was wider than half the pedestal, and this implies in some cases a fitting together like Fig. 8. This is slightly better than if all the joints met at the middle, but in any case the construction seems almost impossibly faulty—and this in an earthquake country, too! Wood says, "My journal records seven shocks of earthquake during the month of April, 1869."

The sculptures on the cubical masses at Ephesus could not have had moulded bases under them, but must have had boldly projecting square plinths, for the lower parts of

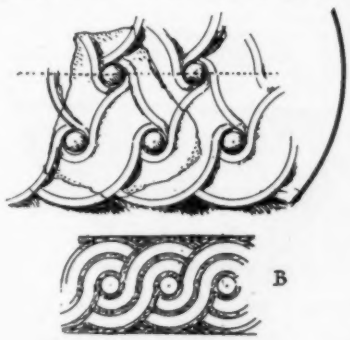


Fig. 10.

the sculptures to rest on (Fig. 6). If these square plinths were of the same height as the moulded bases of the columns which had the sculptured drums, the sculptures in both cases would have ranged at the same level. The diagram (Fig. 9) is given only to show the general effect of the cubical sculptured blocks beneath the outer columns, but being adapted from an old illustration it does not show the plinths to these blocks

nor the bases under the sculptured drums of the inner row. The platform of ten steps is also omitted.

Details.

In a wall case is a small fragment of a guilloche member of elegant fourth-century style. The band placed in the Museum restoration over the sculptured drums has similar decoration, and it was probably suggested by this member. But enough of the little fragment exists to show that it has no longitudinal curvature and could not have

Fig. 11.

been part of such a circular band. It was curved transversely and on the supposition that the dotted line in Fig. 10 was at its centre, it was a roll-moulding about 8 in. wide with a profile represented by the line on the right. Similarly decorated roll-mouldings were frequently employed from the end of the fifth century as base members. They are found at the Erechtheum at Tegea, Miletus, Magnesia, and elsewhere. Judging from a photograph, the character of the work at Tegea is exactly similar to the Ephesus fragment. At the great Apollo temple at Miletus, a work much influenced by the Artemision, a similar plaited band forms part of the base of the antæ, and our fragment may have occupied a like position (see Professor Robertson's *Handbook*, pl. vi.). This guilloche pattern probably came into Ionic from Hittite art: a relief from Carchemish in the Museum has a good example of a single row (Fig. 10, B). Another small fragment from Ephesus seems to be part of a lattice of delicate mouldings on a solid ground (Fig. 11), possibly from a screen. The fine leaf moulding carved on the capping of the pedestals is also extraordinarily like similar work found at Tegea. Fig. 12 is a sketch of the Ephesus moulding. The palmette at the angle, although much larger than one illustrated from Tegea, is again remarkably like it; both have the little scroll thrown off from the last ordinary leaf towards the angle palmette.

The great gutter cymatium at Ephesus sculptured with fine scroll-work and acanthus, which has already been mentioned, is very like the gutter front at Tegea. The latter is smaller, but both have similar elements. There was a somewhat similar gutter front at Epidaurus, but it may not be doubted that it was the Tegean example which was amplified at Ephesus. I do not say copied, for it may be that the same master was concerned with both. Fig. 13,

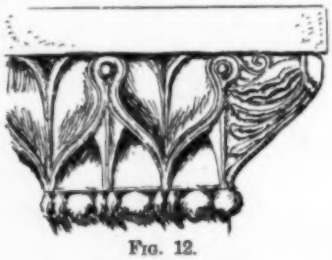


Fig. 12.

from a small detail of the Ephesus work, may suggest its character. Among the fragments, in a case assigned to details of the Crœsus temple, is part of a cyma moulding carved with scrolls and palmettes (B, 83), which is also included in the new catalogue of Archaic sculpture. This, as I have before shown, is late work, and must have belonged to the Hellenistic temple. I gave a restoration of it in the *Hellenic Journal*: it was probably the crowning member of the great entrance. One of the characteristics of this carving is a simple type of acanthus-leaf much like holly. Now on the angles of the capping mouldings of the pedestals the same kind of leaves appear (Fig. 12), and this is full confirmation that this cymatium belonged to the Hellenistic temple. Similar leafage is found among the ornamental work at Tegea. I would recall to mind what was said above as to the resemblance of bases at Ephesus and Tegea, and will anticipate so far as to say that I think it probable that both works were directed by one and the same master.

Wood says that at the temple he "found at the west end a large fragment of what might have been the large central acroterium of the west pediment" (p. 239). This must be the fragment in the gallery labelled "Acroterial ornament," and described in the Catalogue (1900) as "the acroterion." It is of later character than any other known parts of the temple, "Roman" rather than Greek, and it cannot at any time have been set on a pediment of the temple for it is so small. Wood, indicating it on his elevation, doubled the size, and it is only about one-third as big as the acroterion of the Parthenon was. In Pullan's notebooks is a sketch of the bottom part of a late acroterion from the temple at Teos which must have been at least 6 ft. wide (*The Builder*, October 1, 1920): compare also the acroterion at Magnesia illustrated by Humann. Pedimental acroteria were big

Fig. 13.

things. The fragment in the Museum, of which I gave a restoration in 1908, may have been from the pediment of some late and small dependent building, or it may have been the top of a tombstone.

At the Museum are also some pieces of the marble tiling of the roof. Recent exploration of the Church of St. John at Ephesus has resulted in the discovery of several fragments of the Artemision, including tiles which were nearly 3 by 1½ feet in size (Picard, p. 724).

Many observations of great importance must have been made when the actual site of the temple was re-excavated about 25 years ago, but unfortunately they have never yet been published. It is most important that any such details should be put on record, before their full meaning is forgotten, in some such publication as *The Hellenic Journal* or *The Builder*. In this way they may be considered before theories founded on them are embodied in costly volumes and models.

University of London: Extension Lectures.

A most interesting programme of University extension lectures for the coming session has just been issued by the University of London, South Kensington. In addition to the courses which will be delivered in the City, lectures will be given at over 50 local centres in different parts of London and the suburbs. The subjects treated cover a wide range, and amongst the lecturers who will be delivering courses are: Dr. A. Compton-Rickett, Sir Banister Fletcher, P.R.I.B.A., Professor E. A. Gardner, Dr. Maxwell Garnett, Mr. C. E. M. Joad, Dr. Georges Lafourcade, and the Rev. Father McNabb.

"THE BUILDER" DEBATE

XXIII.—RAILWAY ARCHITECTURE.

Sir,—"Positive's" gospel smacks of the Inquisition; but we cannot dispose of all the uncomfortable things of life in this simple manner, and when we attempt it a formidable phœnix often arises out of the ashes of our bonfire. "Positive" is certain of our sympathy in his detestation of railway ugliness, but I warn him that if he attempts to ignore this ugliness and assume its early doom he will be doing more to perpetuate it than all the rest of us put together, who believe that the railways have still a useful purpose to fulfil, and who are determined to reform matters rather than rely upon excommunication. "Positive" talks about "first principles," and I suggest he should pay more than lip service to these. How in the world are "the deliberate steel lines which gash the countryside" to be healed by the simple addition of a coat of concrete? How is nature, which the coal smoke has excluded, to find entry through the fumes of exhaust gases, offered as the alternative? In what way will property bounding the suggested concrete roads be more attractive and valuable than the "zones bordering the railways within which no decent house or establishment can be built"?

"Positive" is probably right in regarding the railway as typical of the industrial revolution, and the latter as a money-grubbing affair. But of this movement the railway is only a part, and its ugliness only a part of the general ugliness which the absence of ideals created. One has only to breathe the saving grace of high purpose into many of the uglinesses of life to discover a new beauty. The railway itself has its element of romance about it. The idea of natural power harnessed in the service of man has been the inspiration of civilisation at many critical stages of its development, and we should have missed much in social intercourse and human understanding if the railway page of history had never been written. Because this wonderful work of man was allowed to develop hastily without the mellowing influence of still higher instincts, is no reason for wishing it had never been born, for there is still much which the railway can do for us in a way which no alternative means of transport can serve. It is difficult to understand how any intelligent individual can profess to believe that the creation of innumerable little power units, which the development of road transport means, can prove an efficient alternative to the use of a comparatively few large power units, as represented by the railway. For local distribution, "Yes"; but for transport in mass from centre to centre, emphatically "No."

"Positive" will no doubt produce evidence that it is already possible to transport goods by road from one end of the country to the other more cheaply than, or at any rate as cheaply as, by rail. But I do not accept this as evidence that the railway has reached the limit of usefulness, because there are many other influences at work against the interests of normal comparison. Properly organised, and brought up to date, there can be no comparison between the two systems. We are everywhere aiming at mechanical centralisation. Electric power stations are designed to serve an ever wider district, in place of the countless local centres. So it must be with transport.

Therefore, it behoves us to recognise an economic fact and do our best to eliminate from it those things which have grown in ugliness. Of these, structural decay, and altering local requirements, will bring a sequence of rebuilding schemes for railway stations. Let us watch these and see that they are handled with taste. Negative.

TWELFTH INTERNATIONAL HOUSING AND TOWN PLANNING CONGRESS, ROME

This Congress was held from September 12 to 22 under the presidency of Dr. Raymond Unwin. As in previous congresses, simultaneous meetings in separate rooms made it difficult to follow the discussions which took place on the papers in the two sections of Town Planning and Housing. This is to be regretted, because it tends to extend the rift in the lute which already exists, and prevents members from fully appreciating the interdependence of these two interwoven strands in the problem of the well-being of urban populations.

The Congress was officially inaugurated by Prince Ludovisi Buoncompagni, Governor of Rome, who in the course of his address deplored the growing tendency of the rural population in all countries to crowd into cities and towns. But, he said, since this movement could not be checked under modern conditions, he welcomed that great assembly of experts from all countries, and hoped that from their discussions ideas would be gleaned to improve conditions in respect of health, light, air and general amenity.

The proceedings opened on Thursday, September 12, with an extremely interesting historical survey of the development of Rome by Professor G. Giovannoni, in which the Professor traced the growth and vicissitudes of the capital city from the palmy days of Ancient Rome through the period of the Middle Ages and Renaissance to the present day and the Fascist régime.

On Friday, September 13, the Congress got to work, and discussions took place on the papers contributed in the two sections. In the Town Planning section the subject was that of "Replanning Old and Historic Towns to Meet Modern Conditions." A large number of Italian delegates took part in the discussion and used this session as a platform to propound their pet schemes for the replanning of the built-up area of Rome. This has been a highly controversial subject in recent years, and the position at present appears to be that no comprehensive scheme has yet been adopted "in toto," but three schemes (prepared by rival groups of town planners, architects and engineers) are in existence. First, there is the "official" scheme which entails a larger and very costly clearance of existing property to permit of further excavations and reconstruction of the remains of Ancient Rome, but is limited to the central part of the city. Then there is a town planning scheme of a heroic nature prepared by a group of architects, headed by Professor Giovannoni, under the title *Burbera*, whose scheme is illustrated by some remarkably fine drawings which form part of the exhibition. The third scheme, which also proposes a number of big new streets to solve the traffic problem is prepared by the "*group of urbanists*" headed by Sig. Marcello Piacentini.

All these schemes have much that is of interest, but it appears quite probable that Signor Mussolini will eventually solve the problem in his own characteristic manner. In the meantime certain districts are "scheduled" by the authorities for a period of 25 years (which can be extended), and in these areas the value of property for compensation, in the event of expropriation, is fixed as the value at the commencement of the period. This has the effect of retarding any development, as owners do not spend any money on rebuildng, or even repairs, owing to the uncertainty which exists as to what is likely to happen.

The problem of replanning for urgent traffic needs and amenity is still further complicated by the agreed necessity of respecting the remains of Ancient Rome, and by the existence of the huge, elaborate and pompous national monument to Victor Emanuel I., which must also be respected, though it does not seem to be admired by any section of the citizens.

Apart from this special aspect of the problem, very little of practical value resulted from the discussion. The conclusion in the summary of the papers prepared by Sig. Marcello Piacentini were generally adopted: of these, the more important were the diversion of traffic from congested routes inside walled towns by a circular route following the line of the old moat or town ditch with a garden strip on the outside of the walls, and that in place of street widenings alternative routes should be made by linking up existing streets in the direction of the traffic flow: the isolation of buildings or groups of buildings of artistic or historic interest by making gardens or open spaces round them. In the case of old cities where a new centre has replaced the old—such as a railway station, etc.—the development should be encouraged and the alterations to the old centre reduced to problems of amenity and preservation only. It was also generally agreed that this policy, if wisely carried out, would be financially successful.

Lt.-Col. Cart de Lafontaine (England) pointed out that in his country the chief obstacle to dealing with this problem was that the existing Town Planning Acts did not apply to the built-up part of the town.

Mr. Pepler (Town Planning Institute) said that the main difficulties with regard to replanning built-up areas in England were not due to a lack of technical skill by town planners, but were social and financial: the disturbance of existing owners and the question of how to meet the cost of carrying out a scheme. He asked for information from the German delegates with regard to the working of the "Lex Adikes" in this respect. Two or three German delegates then explained that, generally speaking, the method of expropriation under the Lex Adikes was that in the area scheduled the existing property was pooled and redistributed in equivalent areas, of which 65 per cent. was returned to owners and 35 per cent. retained by the municipal authority for improvement.

M. Schaerbeck (Belgium) explained a method of expropriation for replanning by zones. Compensation in such cases would be considered in conjunction with "betterment" or the increased value resulting from the improved scheme.

The first subject for discussion in the Housing section was "Financing Working-class and Middle-class Housing, with special reference to methods of attracting new capital." Here the conclusion arrived at, was that if rents of new houses are to cover all expenses, they must be considerably higher than the legally restricted rents of pre-War houses. From the various papers submitted on this subject, it would appear that in all European countries there is still a serious shortage of housing, and no very clear idea of how the finance is to be obtained except by subsidies or by State or municipal building. Mr. Leigh Smith (England) said he hoped that savings in national expenditure by general disarmament could be used for this purpose, and indicated an ingenious method by which this might be done in his paper on the subject.

The second Town Planning subject was the "Method of Planning the Extension of Towns, with special reference to Old and Historic Towns." Here the discussion centred on the various forms of town expansion; peripheral, radial, axial, or satellite. The Italians mostly favoured the latter, and explained that this method had proved successful in the case of several towns in the north. The German delegates seemed more interested in traffic routes and axial extension, while one or two English delegates favoured radial development with wedges of open space between them.

Mr. Peirson Frank, the "reporter," made two announcements of interest to town planners: the proposal of his own city—Liverpool—to hold a competition for the lay-out of the dock approaches on the Mersey, and a projected international competition the lay-out of part of the City of Madrid.

Dr. Raymond Unwin (President) said the discussion had brought out two points: the value of historic buildings, and the alternative value of improvements. He thought this was misleading, because these "values" were incommensurate; the only solution was to consider them together, and this was the art of town planning. Town planning was really a branch of the great art of design, and based on the same elements as the making of a pattern for a carpet. Town planning should be rather like designing a pattern on an open background, but the present position was exactly the reverse, as the town planner has to design his pattern on potentially a built-up groundwork.

Dr. Gibbon (Ministry of Health) said that the problem was essentially a biological one, and stressed the importance of the regional plan as the framework for town planning.

The papers relating to the second Housing subject, "Planning Apartment Housing Schemes in Large Towns," caused some surprise to the Italian delegates owing to English support of the idea of tenement dwellings as the best solution of the housing problem in large towns. Great Britain has been associated so long with the "garden city" idea that it was something of a shock to hear delegates from Manchester and Liverpool urging the apartment house as the solution of the problem of housing in larger cities.

The general conclusions arrived at by the "reporter," Ing. C. Albertini, (Director of the Town Planning Department of the City of Milan) were:—

1. Apartment houses must be looked upon as unwelcome, but necessary to meet social and economic needs.

2. It is preferable that the building of apartment houses should be confined to the inner areas, and that building on the periphery be less intensive.

3. To obtain the best hygienic conditions, detached blocks of apartment houses are preferable to the "closed" type of development.

4. It may be deemed expedient to have as many as four dwellings opening on to the same landing, provided that these are well ventilated.

5. The use of balconies as a means of approach to dwellings (on upper floors) is not objectionable, and this enables the number of dwellings per staircase to be increased.

6. Fittings and accessories to be used in common should be numerous and well-arranged, and their installation should be encouraged.

7. Apartment houses must generally be regarded as unsuitable for large families except on the ground floor or in parts of the building where there is ample sun and air.

The general meeting of the Congress was held on Monday, September 16, when Dr. I. G. Gibbon read a paper on "The Need for Research in Town Planning." "The fundamental idea behind the whole paper," to use Dr. Gibbons's words, was "that at present we know far too little of what Town Planning should be." The speaker said he thought international congresses would be failing in their duty if they did not increase the store of knowledge of the precise facts of town planning. Systematic measures should be taken to gather together and co-ordinate all available information.

Dr. Schmidt (Germany) said he thought

the real need in town planning was "ideas" far more than facts. If one had a man with personality and ideas he would get things done. He then described what had been done in the Ruhr district of Germany, for which he is responsible.

Mr. Rigby (Australia) said that if the money was available more could be done in getting information. A civic survey and other things cost money, and that was why they were not always done. Research work should be done by men freed from administrative duties and assured of adequate remuneration, and he suggested this research department should be attached to a Government department.

Mr. R. Zigment (Warsaw) urged the necessity for more extended education of the public in town planning principles which should be part of the curriculum in polytechnics and secondary schools.

Mr. Pepler (England) said they were agreed on the need for research: the question was, How to do it. Business men did not take town planning seriously, because they did not realise its importance, and in this respect he was against making their bureau of research part of a Government department as it would increase this feeling. He thought that it might be possible to get industry to support research on a voluntary basis, which would be better than if it was done by a Government department. There was already a mass of information available in many countries, notably in Germany.

Dr. Gibbon, in reply, said that it was not the work of the town planners to decide *policy*, which must be left to others. He agreed with Mr. Pepler that it would be very undesirable to attach any research work to a Government department. He asked the Congress to appoint a committee of five to investigate the best method of carrying out this work of research.

The general meeting of the Congress followed, when the four "reporters" presented summarised reports of the discussion on the various subjects, and the proceedings terminated with the customary votes of thanks to the Governor of Rome, the Podestas of Naples, Milan, etc., to the Chairman of the Italian Committee, Mr. Alberto Calza-Bini, and others.

During the Congress, visits were paid to Housing schemes near Rome, and recent town planning in the environs; to the ancient Port of Ostia, where the recent excavations were inspected, and during their stay in Rome, members were entertained to various receptions and social functions. Further visits were organised to Naples, Milan, and other towns on the Italian lakes, and the final meeting took place at Milan, on Saturday, September 21, when Ing. Cesare Albertini read a paper on the "Development of Milan," with special reference to the schemes submitted in the recent Town Planning Competition for the replanning of the central area.

An Ancient Welsh Fort.

The fortified hill-top village at Penmaenmawr, overlooking the Chester-Holyhead main road, is, we learn, disappearing before the development of a setts quarry, and a leading Welsh archæologist has stated that it is now too late to save the relic.

The mountain, which was Crown land, was leased to a quarry company some years ago. It then became known to local archæologists that there was a possibility of the old fortress disappearing, and Mr. Harold Hughes was instructed by the Cambrian Archæological Society to excavate the whole of the top of the mountain and make plans of the remains. Mr. Hughes made a survey of the fortress, and the plan is now at the National Museum of Wales at Cardiff, together with all the chief finds. Nearly all traces of the fortress have vanished, including the cairns and mud huts.

THE GREAT GATEHOUSE, ST. ALBANS

The great Abbey of St. Albans was, during the days of its prosperity as a Benedictine monastery, surrounded by a wall which enclosed all the buildings necessary for monastic life. These included the refectory, dormitory, cloisters, chapter house, kitchen, infirmary, dovecote, guest house, stables and granary, orchard, vineyard and garden, together with the prior, cook, abbot, cellarer, and servant's lodgings. While the fish house and ponds and cemeteries also formed part of this large monastic establishment.

There were several gatehouses which gave access to this enclosure. The largest of these, the Great Gatehouse, alone remains standing. The Water Gate, the Waxhouse Gate (where the tapers used for burning before shrines were made) and St. Germain's Gate having long since disappeared. They were demolished after the Dissolution of the Monasteries. The Great Gatehouse stands to the west of the Abbey, being the chief entrance to the monastery. It was built *circa* A.D. 1363, during the time of Thomas de la Mare, on the site of a previously existing gatehouse which was blown down in a violent gale a few years earlier. It not only served as a gatehouse, but as a prison for offending monks and laymen of the town over whom the abbot had jurisdiction. This sturdy structure was stormed by rioters during Wat Tyler's Rebellion, the monks in their terror giving wine and beer to their assailants, but on the news of their leader, Wat Tyler's, death reaching them they dispersed, John Ball, among other ringleaders, passing the time between trial and execution in the dungeons below, shown by the dotted lines on the drawings. (See supplementary plate.) One of the first printing presses was set up in the "woodwork" room in 1480 by the schoolmaster printer, John Insomuch.

After the Dissolution of the Monasteries the whole building was taken over by the town and used as a gaol for the borough, the court being held in the room over the archway. During the Napoleonic Wars French prisoners of war were confined within its walls. In 1868 the building was found to be too small for use as a gaol, which would seem to cast adverse reflections on the standard of the morals of the people of those days. However, it was bought by the governors of St. Albans School (which up to that time had been held in the lady chapel of the Abbey), and in 1870 the school moved into it. This school is one of the oldest public schools in the country, having since then extended and enlarged its premises so much that the gatehouse now only forms the library and museum. The dungeons beneath the roadway and the whole of the ground floor are about 16 ft. deep; they were probably much deeper in mediæval times, having accumulated a lot of rubbish since then. All except one have had their entrances sealed and are now inaccessible.

The building is in the form of a parallelogram measuring 100 ft. by 40 ft., being 55 ft. high to the embattled parapet, and 65 ft. high to the ridge of the roof. The walls are composed of rubble with flint facings externally and plastered internally, those on the ground floor being 6 ft. thick. There is a legend that Charles I hid a quantity of valuable jewellery in the wall adjoining the school, but this has never been found. All the chambers on the ground floor have avenues of vaulting, the ribs and shafts of which are not moulded but just chamfered. It looks very neat, however. The postern on the north side just reaches up to the first floor, while the arch over the roadway cuts slightly into it. On the south side the arch, spanning as it does the whole roadway, cuts almost up to the second floor.

The names to the various rooms shown on the drawings are, of course, those ascribed to them by the school. As will be seen, the windows are set on the external face of the wall, thus having very deeply splayed reveals, the soffits being slightly arched. As one looks up from beneath the archway, one sees a very neat example of lierne vaulting, this being typically English by its ridge rib and method of filling in between the intermediate ribs, tiercerons, etc. The junctions of the liernes with the wall ribs are masked by bosses of carved bunches of foliage, while the central and four main junctions of the octagon must have had some type of turned ornament to fill them, as at present there are five neat holes through which, so tradition goes, hot lead was poured on insurgents below when attacking the gateway, after these bosses had been removed. Prisoners were also tortured in this manner. The small turret in the thickness of the north wall starts from the ground floor, and goes up to the first floor only. There used to be another turret on the same side leading from the "store" over the dungeons, but this has since been built up.

There are no fireplaces at all on the ground floor. The turrets on the southern side go right up to the roof, and it is possible they also went down to the dungeons. It will be noticed that these are not symmetrically placed on plan; indeed, it is rather curious how that some of the windows fit right up against them. The first-floor walls are only 4 ft. 6 in. thick; the windows also have wider splays than those on the ground floor. In some cases, on all floors, the wall between the floor and the window sills has been built in set-offs, and on the third floor cut right away so that one may get close up to the window, apparently to increase the line of vision and also because thick walls were not necessary for defensive purposes at this height. The corners of the turrets are cut off, making them semi-octagonal.

It seems as if portions of the internal walls have been removed at some period or other on this floor for purposes unknown. On the external walls, next the archway, may be seen huge chamfered oak beams with corbels, or ends of other beams, projecting under, evidently part of the floor construction over the lierne vaulting. Access can also be gained to the turrets from this level. There were apparently some old fireplaces on this floor, which have been covered up and now form openings for modern gas fires. The dotted lines on the western side of the plans show the beginning and connection of the present school laboratories, etc., which stand on the site of the old almonry of the monastery.

The second floor is perhaps the most interesting from an archæological point of view. It is divided into three large chambers, and has some good specimens of early Gothic fireplaces. That in the "woodwork room" on the wall next the "music room" bearing the royal arms on the hood. It also bears the initials C.R. (Carolus Rex, King Charles I). The back of this fireplace is built of very small bricks. Another similar fireplace exists on the opposite external wall, but which has no royal arms, although there are remains of some old indiscernible carving on it now. The fireplace in the "gymnasium" has been spoilt and is not very interesting to look at now. The flues to these fireplaces are practically straight, as one can look up them and see daylight quite clearly. They measure about 12 in. square in their smallest parts.

The "woodwork room" is the room in which one of the first printing presses was set up by the schoolmaster printer John Insomuch, in 1480, as before stated. The "music room" was used as a court house for many years and has a famous old semi-circular table known as a cope table. This once belonged to the monastery, and is over 500 years old. Here also lie the remains of the wooden gates to the postern and archway on the northern side. All three chambers, which have access to the turrets, have fine old oak beams in the ceilings supported by bracketed oak posts and half posts on the walls, which in turn are supported by corbels with weird and grotesque faces carved

in stone. The doors connecting the rooms are very heavy and armoured with sheet metal and studs. They also have mortise locks, the keys of which are very large; that to the "woodwork room" is some 15 in. long.

The attic floor was the old roof, as, until about 1780, this building had a flat lead-covered roof, but for some reason a tiled pitched roof was added. This roof is composed of ordinary tiles laid on small battens, and fixed by oak pins about 3 in. long. Although this hipped roof shows up prominently on the elevations, yet it is not very noticeable actually on the building, only from a distance. It thus appears that the brick chimney-stacks are no older than this roof, at least the portion above the tiles. Access can be gained to the roof from the turrets, which have small oak doors (one being only 4 ft. high and studded with trenails). An "ammunition room" has since been formed in this roof by the school. The old whipping-post may also be seen where prisoners and offenders against the law suffered castigation.

The north and south elevations have embattled parapets, and so probably had the east and west ends before the hip roof was put on, the hips striking the walls rather high, as shown on the drawings. On the south elevations are the two turrets and the large arch, the hood or label mould of which is carried round the turrets in the form of a string course. It has a high plinth which, except for the corners of the buildings, seems to finish anywhere. Even in this arch the mouldings on the external face die out at the springing line, having no imposts or skewbacks, those on the inside of the arch being carried right down the jambs. The walls are of flint with both stone and brick dressings; the upper part of the corners seems to have been renovated at some period, as they are of brick dressings similar in size to the stone quoins. The windows are of the advanced two-light lancet type, having trefoiled and pierced heads, with cusps enclosed by a square hood or label mould, the jambs being just splayed and recessed. The turrets have small windows overlooking the entrance to the archway. Their doors are thick and heavily armoured. The parapets to this elevation are large and high, the stone coping not running all round the machicolations, but just along the top as is usual in all early work.

Some of the windows on the northern elevation have small ogee-shaped heads with pierced quartrefoils, but are otherwise similar to those on the southern side. The jambs in some cases have recently been restored owing to their bad state. On this elevation the builders seem to have made an attempt to form some brick patterns, while the position of the two wall turrets may plainly be seen by the masses of brickwork running the entire height of the building. The heavy 5 in. oak gates which once hung within the arches are studded with trenails and formed of small panels. They now rest in the room over, while the lugs to which they were hung may be still seen embedded in the stonework of the jambs. The parapet is not so high as that on the southern side, being built of brickwork, while the other is in flint. The east elevation does not present anything very interesting beyond the brick finishing to the top of the wall which shows the brickwork added when the roof was altered.

This building, which is very ponderous and sturdy, is typical of the monastic buildings of its day, being built to defy all would-be molesters and insurgents. It must have seen and passed through some very stirring times, having hidden many a fleeing refugee, seen many executions, and accommodated kings during stormy periods of its existence. Standing, as it does now, amid peaceful surroundings, with its big brother, the great rambling Romanesque Abbey, it is very interesting and worthy of close and sympathetic study.

CYRIL F. FOX.

INQUIRY BUREAU

Steel-framed Buildings.

[REPLY TO "DESIGNER." SEPTEMBER 27.]

SIR,—Generally speaking, when the outer walls can be built by ordinary means no thicker than 14 in., that is the stage at which the steel-framed principle ceases to be economic. There are, however, other factors which may impose the steel-framed principle as an economic proposition, even under these circumstances, and each individual case must be treated on its merits.

PRINCIPLES.

Drains.

[REPLY TO "POINT," SEPTEMBER 27.]

SIR,—Occupation of a single house does not affect the question of combined drainage. House, of course, includes a shop. Drains to houses, and indeed all premises coming within the same curtilage, may be connected up within the curtilage and discharged at one or more points into the sewer. Therefore, in the circumstances described by "Point," the connection of the new drain with the existing original drain does not constitute the old house-drain a "sewer" and repairable by the inhabitants at large. The new drain may be connected to the old existing drain as suggested, or it may be separately discharged into the sewer, but the local authority has no power to insist upon a separate connection.

SURVEYOR.

Approximate Cost of Buildings.

SIR,—Having recently returned from abroad, I am anxious to correct the following table of approximate cost of buildings per cubic foot, which, of course, is very much out of date, and should be glad if one of your readers could give me the current prices :—

Workshops, etc.	5d. to 7d.
Asylums (lunatic)... ...	7d. to 11d.
Large workshops and factories	4d. to 5d.
Stabling	5d. to 8d.
Cow-houses	4d. to 6d.
Labourers' cottages ...	4½d. to 5½d.
Small houses	6d. to 9d.
Large town houses ...	8d. to 1s.
Churches and chapels, from	6d.
Baths, public	1s.
Halls and libraries ...	7d. to 10d.
Large hotels	1s. to 1s. 6d.
Municipal buildings ...	10d. to 1s. 6d.
Hospitals	8d. to 1s.
Offices	9d. to 1s. 2d.
Shops	7d. to 1s.
Theatres	1s. to 1s. 4d.
Warehouses...	5d. to 10d.
Workhouses...	7d. to 10d.

YOUNG ARCHITECT.

District Surveyor's Fee.

[REPLY TO "E. C.," SEPTEMBER 27.]

SIR,—Under Clause 2 of the Fourth Schedule of the L.C.C. (General Powers) Act, 1928, no fee is payable in respect of the fixing of a chimney-pot, and under Clause 3 no fee is payable in respect of the repairing of a chimney top unless the top has been pulled down to a greater extent than twelve inches. Reading these together (and they must be construed together), it is obvious that the top is intended to be the top of the stack itself and not the top of the chimney-pot. If, therefore, "E. C.'s" client has, in fact, not taken down more than twelve inches of the stack itself, no fee is payable. Any other construction of this would be absurd.

STACK.

Boarded Roofs.

[REPLY TO "F. N. L.," SEPTEMBER 20.]

SIR,—Roof boarding is primarily to carry felt, which is designed as a second protection against penetrating weather, and to maintain equable conditions inside during extremes of temperature. On such a roof battens should be laid on vertical battens, to allow the exit of water and avoid accumulations of damp, which might set up rot.

CONSTRUCTION.

ILLUSTRATIONS

(*Continued from page* 554.)

place old premises and brighten a somewhat drab neighbourhood. The back and front of the premises abut on two roads, and there is a connecting passage off which is entered a smoking-room, public and private bars, and an entrance to tenant's quarters on the two upper floors. A servery is arranged centrally, so that service and direct supervision is obtained to all the licensed apartments, a necessary condition in designing licensed premises. The interior treatment harmonises with the Tudor feeling of the street front, which has half-timber work constructed in solid English oak with ornamental plaster-work panels, illustrating the sign of the house, "The Plasterers' Arms." The general contractors were Messrs. McCarthy E. Fitt, of Oxford-road, Reading.

Messrs. Charles Smith and Son, F. and A.R.I.B.A., of Reading, were the architects.

Proposed Entrance Lodge for Missionary Guest Houses, Ltd.

This entrance gateway and lodge to a block of service flats, designed to house 25 families of missionaries on furlough, is now being erected at Selly Oak, Birmingham. The building is designed to house the lodge-keeper and his family, with extra bedroom accommodation on the first floor, which could be used in emergency as overflow accommodation in connection with the flats. On the ground floor there is space also for bicycles, a small workshop, a forge, and a garage for the residents. Perambulators are to be stored elsewhere under the same roof as the children's playroom. The lodge will be built of 2-in. local "Ruftone" bricks, to harmonise with the existing building. The first floor is faced with weather-boarding painted white, and the roof will be covered with "antique" tiles. The cost is estimated at £1,900, approximately.

Mr. Arnold Silcock, F.R.I.B.A., is the architect.

MEETINGS

FRIDAY-SUNDAY, *October* 4-6.

Town Planning Institute. Meeting at Letchworth.

Smoke Abatement League of Great Britain. Smoke Abatement Conference. At Buxton.

SATURDAY, *October* 5.

Association of Architects, Surveyors, and Technical Assistants. Visit to the London Telephone Exchanges — City, Central, and Trunk. Meet G.P.O. (South), Carter-lane, E.C.4, at 2.15 p.m.

TUESDAY, *October* 8.

League of Arts. Dr. Dearmer on "Byzantine and Byzantinesque Art: the Origins—Hellenistic, Eastern, Northern."

Illuminating Engineering Society. A Report on progress in Illuminating Engineering. 6.30 p.m.

WEDNESDAY, *October* 9.

L.C.C. Central School of Arts and Crafts. Sir Banister Fletcher, P.R.I.B.A., on "Egyptian Architecture.—I. Influences: Architectural Character." 5 p.m.

FRIDAY-SATURDAY, *October* 11 *and* 12.

Royal Sanitary Institute. Discussions on "Some Notes on Recent Bridges over the River Severn"; "Reconditioning of Houses under the Housing (Rural Workers) Act, 1926"; and "The Scope of a House Property Management Department." At the Castle, Shrewsbury. 4.30 p.m.

The Liverpool Replica of Gilbert's "Eros."

Liverpool City Council have accepted the offer of Mr. George Audley, of Birkdale, Southport, to present to the city a replica of the London statue "Eros," known as the Shaftesbury Memorial Fountain, by Alfred Gilbert, M.V.O., D.C.L., for erection in Sefton Park.

THE BUILDING TRADE

RECURRING DEFECTS THEIR CAUSE, PREVENTION & CURE.—XIV

By J. R. TAYLOR.

Domestic Water Supplies *(continued)*,

In my last article I put forward some suggestions relative to the position of the hot-water fittings and the pipe runs under the "cylinder system" of hot-water supply. Another system that enjoys a certain amount of popularity is that known as the "tank system." This system is unfortunately named, and this leads to some confusion of thought. Strictly speaking, the cylinder system means that hot water is drawn off from *above* the storage cylinder, whereas with the tank system it should be always drawn off from *below* the storage. In practice, however, the cylinder is sometimes debased to carrying on as a tank, and the tank promoted to functioning as a cylinder. I use these terms, "promoted" and "debased," advisedly, as when correctly installed the cylinder has several important advantages as compared with the tank. I have already shown in my previous article that, on the whole, the best position for the cylinder, in the interests of efficiency and economy, is close to the boiler; its great comparative resistance to pressure makes it peculiarly suitable to this position. A galvanised iron cylinder, constructed of ⅛-in. plate, complete with union bosses, and of equal capacity to a tank of similar construction, will not exceed the latter in first cost; but whereas the tank will only be tested to 5 lb., the cylinder will be tested to 25 lb. pressure. Being rectangular, the tank is a little easier to house, but surely this is not sufficient compensation for the disparity in strength. The next advantage, and by far the most important one, is that when the cylinder system is correctly installed all the branch supplies are in true circulation. It is of the utmost importance that this advantage should be sought wherever possible, if only for the reason that the heat radiated from the hot branches may be utilised for protecting the cold branches from the effects of frost. The use of a "tank" does not necessarily preclude this advantage, but the use of the "tank system" does do so for all practical purposes.

Grouping.

The more time the young architect devotes to the study of hot-water systems, the more insistently will the question of grouping force itself on his attention. He will find that, to get the best and most economical results, he can no longer regard the hot- and cold-water points in the same light-hearted manner that he might a gas- or electric-light point, and that, consequently, he must have more regard to clean, short and easy pipe runs, when planning; and that this factor will assume much greater importance in the lay-out of the sanitary fittings in his general design.

Protection against Frost.

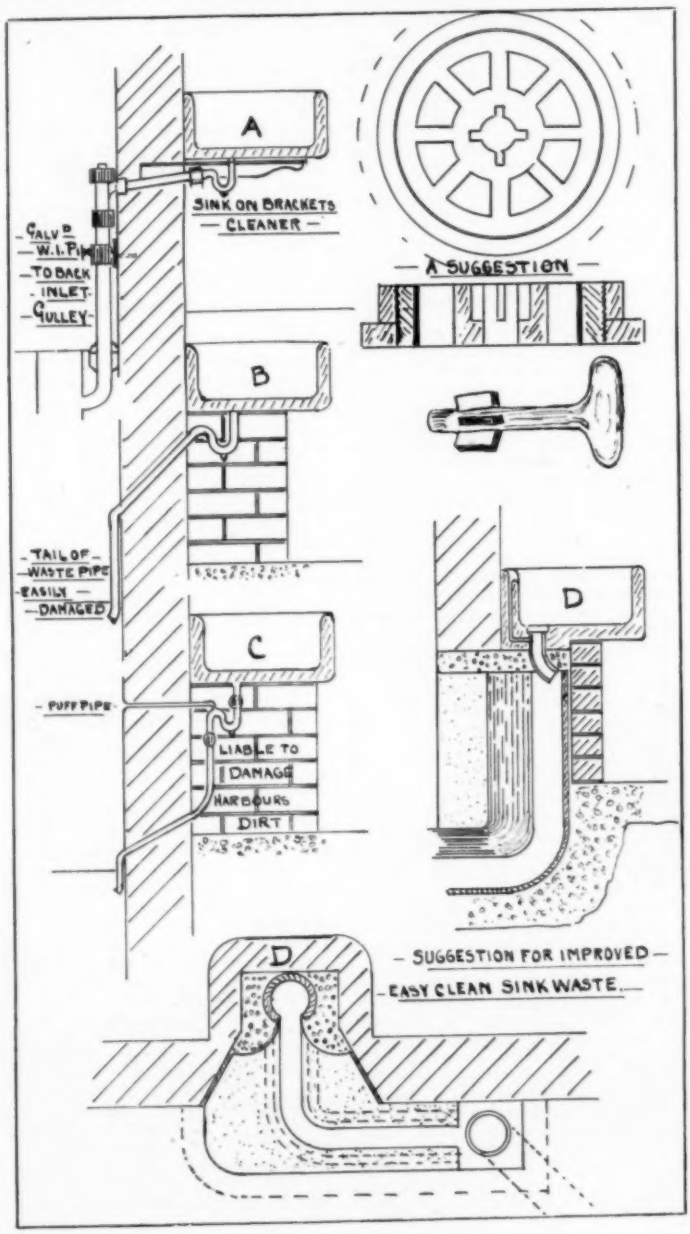
I shall later on come back to this vexed question, which is important enough to take up most of the space that can be afforded to any one of these articles. But meanwhile, I suggest that it is mainly governed by simplification of the grouping. Given the protection of a hot-water pipe alongside of them and in true circulation, there would be very little danger of frost affecting the cold branches in an occupied house. In arranging for this protection, regard must, however, be had to the heat energy lost by radiation, but in an average small house this can be much more than compensated by casing the cylinder and primary flow and return pipes with boiler composition. The cost of all this need not necessarily be high if sufficient consideration is given to it at the outset.

Sink Wastes.

The commonest defect found by the sanitary inspector on his rounds in connection with cottages is a sink waste having the end broken off flush with the brickwork where it emerges into the open air. Soft water is injurious to lead, and rainwater running down the wall attacks the lead bend at this point. Hot water is constantly strained over the sink waste at the gulley, and the violent fluctuations of temperature thus set up still further weaken this bend. Disliking the job of picking out refuse from dish-washings, the housewife or the servant removes (or enlarges the holes in) the sink grid. Sooner or later the waste pipe is choked. Someone pokes a stick up it, and to expedite this unworkmanlike process pulls up the weakened tail, which comes away in his hand. If he is of a literary turn he eases his vexation by writing to the papers to tell them how incompetent those architects, builders and plumbers are, and how much better a job a motor engineer would have made of it.

Sink grids are generally of too flimsy a structure to afford either firm fixing or to resist unwise attempts to enlarge the holes in them. In the sketches will be found a suggestion for one of much greater substance that ordinarily would only be removable by a key. Driven from this point of attack the average householder might in time be brought to understand the uses of the cleansing eye in the lead waste trap.

I also offer a suggestion for a form of sink waste consisting of three-quarter section channel pipes similar to those used in manholes and inspection chambers (Sketch D). As it could be very easily cleaned from the outside (by turning on at tap and inserting



a mop), I do not think any sanitarian would object to it because of its being untrapped. After all, when a waste pipe discharges over a trapped gulley, the principal duty of the second trap is to stop the unpleasant smell arising from a coating of decayed grease on the inside of the waste pipe. On the waste suggested, dirt and grease would be too unsightly to be left long enough to decay.

With sinks mounted on brick piers (Sketches B and C), not only is harbourage afforded to dirt, but the lead waste is bruised by buckets being pushed underneath. Brackets (Sketch A) do not as a general rule afford sufficient security against the sink becoming dislodged. By early attention to detailing, sinks having tail pieces for building in, as in hospital practice, would improve matters and could be adopted without much increase in expense.

Sink wastes do sometimes choke at the last external bend because of lack of care in preserving full bore when forming it. If this happens on a waste having a puff pipe to the trap (Sketch C), and the stoppage is only partial, waste water may escape through the puff pipe unless prompt action is taken, and unpleasant results will follow.

Cleansing a waste pipe is important but simple, and as most of our schools now run what they call a domestic science class, it is curious that there is any longer any mystery about it. Simple matters of this sort, appertaining to the care and upkeep of a house, might well be included in the syllabus of these classes. I must not, however, be understood to be advocating anything in the nature of an "architectural course" as an ordinary school subject.

DOMESTIC WATER SUPPLIES

Sir,—I have read with interest Mr. J. R. Taylor's articles in *The Builder*, and particularly No. XIII, in which he exposes many fallacies. One remark of his, however, in connection with fallacy No. 4 is perhaps carelessly worded—"flow and return pipes. These pipes should be of the largest bore on the whole system." But if these are made so large as such words suggest, surely the circulation from the boiler through the cylinder will be so rapid that only warm water will pass at first and the warm water may have to circulate three or four times before becoming "hot." Is it not better to reduce the area of the "return" pipe, possibly by means of a valve incapable of shutting down completely? In this way small quantities of "hot" water can be drawn within a very short time after the boiler has been lit. By this method the same number of thermal units get into the cylinder in the form of hotter water at first though less of it. This I have found to be borne out in practice on complaint that only warm water could be obtained in the morning, though plenty of hot water later.

John Hipkin.

Commenting on this letter, Mr. J. R. Taylor writes as follows :—

I have read Mr. Hipkin's letter with great interest, and the points he raises are of considerable importance, but my readers must not assume that in these short articles I make any pretence of covering the whole ground. With such a wide variety of subject matter space forbids too elaborate a treatment.

It does not follow that because the primary flow and return pipes should be of the largest bore on the whole system they should be so large as to cause a lack of balance, nor even that the bore will invariably be the same. If it were not for the fact that it is generally desirable to make provision in these pipes for "furring up" (which will normally have reduced the bore long before they are worn out) it would be more correct to insist that the cold feed should have the largest bore. The ultimate bore of all the various pipes is governed by the number of taps that are likely to be open at any one time, and the balanced capacity of the other components, boiler, cylinder, etc.

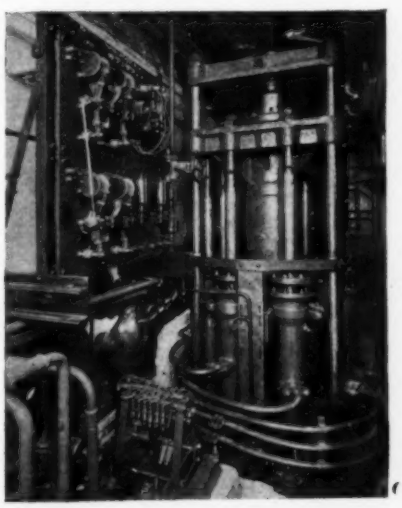
In the small system illustrated in Article XIII it would not under ordinary circumstances matter that the whole of the cylinder contents had passed rapidly and repeatedly through the boiler, because at about one-and-a-half hour after the fire had been lit it would require nearly the whole to ensure one really hot bath, and it is this defect of inadequacy that lays it so open to criticism. Where for some special reason it is desirable to have a large reserve of *warm* water later but a rapidly available supply of *hot water in small quantity*, the installation of a larger cylinder with a special appliance incorporated meets the case better than a hand-controlled valve. This appliance is in effect an automatic, self-regulating valve inside the cylinder, by means of which the water in the lower part of the cylinder does not start to circulate until that in the top part has reached a given degree of heat. Existing systems in which the cylinder has an access manhole may be improved by the introduction of this fitting, particularly if the cylinder is too large to balance the boiler capacity. It has the merit as compared with hand control valve of eliminating the human factor and consequent liability to error.

Granting that hot water for domestic use has to be obtained by means of lump fuel (*i.e.*, not gas or electricity), the small independent boiler kept alight throughout the night is probably the most efficient and economical, as abundant supplies are always available. It has also the advantage that, being in constant operation, it is possible so to run the pipes as to protect the cold supplies from the effects of frost. This last point, coupled with the fact that even in small sizes the independent boiler has sufficient reserve to permit of the introduction of two or three small radiators on the system, appeals to me as decisive.

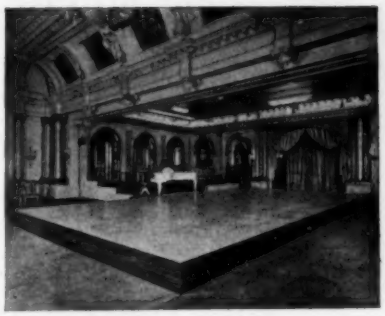
J. R. Taylor.

A RISING DANCE FLOOR

The custom of dining out, which has increased by a very considerable extent within the last few years, has been attended by a corresponding demand for novel and striking forms of entertainment. As a result of this demand, an engineering feat which is believed to be unique, has just been completed at the Savoy Hotel, London. The plan was conceived of reconstructing the dance floor of the restaurant in such a fashion that a section, 40 ft. by 20 ft., should be capable of elevation to a height of 2 ft. 3 in. above the permanent floor level for the purpose of giving



The Hoist-Control Ram in basement.



The Floor Raised.

cabaret entertainment, such section to be lowered immediately afterwards for ordinary dancing.

The greatest difficulty to contend with was that immediately under the restaurant is situated the main ballroom, the ceiling of which could not be interfered with. It was obvious, therefore, that any raising mechanism of the platform would have to be situated between the ceiling of the ballroom and the floor of the restaurant.

The scheme eventually decided upon by Mr. Pay, the chief engineer of the Savoy Hotel, and Mr. W. J. Huggett, of the Express Lift Company, Limited, was a patented system of multiple hydraulic rams with electric push-button control. Light hydraulic lifting rams and cylinders were fitted in the floor of the restaurant for raising the platform, in such positions that they did not project through to the ceiling of the ballroom. The platform itself is of steel framework, specially constructed to give the minimum depth possible, and on this is carried the oak parquet dance floor. As much of the permanent floor under the rising floor as could be was removed to gain all the depth possible, the whole of the restaurant floor being then built up 10 inches to the level of the rising dance floor when in its lowest position. This work was completed in one night. Throughout the whole of the work, which occupied six months, the hotel guests were not aware at any time that alterations were taking place.

With a platform of this size to be raised and lowered by means of multiple rams, it is inevitable that unequal loading will take place, and if equal hydraulic pressure was applied to each of the eight rams, the speed of each would vary according to the loading on the corresponding part of the platform, with the result that the platform would attempt to rise unequally.

To overcome this, a specially constructed hydraulic machine was designed, by means of which all the hydraulic rams raising the dance floor must move up and down at equal speeds, *irrespective of any unequal loading on the floor*. This machine is situated three floors down from the restaurant, and hundreds of feet of high-pressure hydraulic pipes have been run to connect with the cylinders and rams operating the rising floor. The starting valves controlling hydraulic machines are also situated in the basement, and are electrically operated by push-button switches fixed three floors above at the rising floor level. When the platform is in a raised position, the sides and space below to the permanent floor are protected by folding shutters, which fold away under the new permanent floor when the platform descends.

The dance floor has a new system of springing, devised by Messrs. Howard & Sons, whereby a large amount of vibration experienced in spring dance floors, especially by those sitting at surrounding tables, has been eliminated, to the greater comfort of the dancers and the non-dancing guests. The same principle has been applied by Messrs. Howard & Sons to the dance floor at Claridge's, and the firm are at present engaged in laying large dance floors in popular *rendezvous* in London.

NEW BUILDINGS IN LONDON

Acton.—Building.—Messrs. Wm. Shurmur & Sons, Ltd., Riverside Works, Upper Clapton, E.5, are the builders for the new Y.W.C.A. technical institute, Acton-lane, W.3. Mr. C. H. James, F.R.I.B.A., 15, Gower-street, W.C.1, is the architect. The work is estimated to cost £16,920.

Beaufort Gardens.—Extension.—The private hotel at No. 46 is to be extended. Adjoining premises have been acquired and are being converted into flats, etc. Messrs. Castle Bros., Ltd., 279, Borough High-street, S.E.1, are the contractors. The plans are by Mr. P. C. Boddy, architect, 19, Palace-street, S.W.1.

Cheapside.—Reconstruction.—The premises of Sir John Bennett, Ltd., at 65, are to be rebuilt. The plans for the scheme are in the hands of Messrs. Marcus E. and O. H. Collins, architects, 115, Old Broad-street, E.C.2.

Chelsea.—Shops.—A start is shortly to be made upon the second section of the site development scheme being carried out by Messrs. Hillier, Parker, May and Rowden, estate agents, 27, Maddox-street, W.1. The work involves the demolition of Nos. 52 to 58, King's-road, S.W.3, preparatory to the erection of a block of shops and flats. The scheme is in the hands of Mr. McPherson, the company's staff architect. The contractors are Messrs. Hammond and Barr, Ltd., Sloane-avenue, Chelsea, S.W.3.

Croydon.—Premises.—New premises are to be erected on the site of 35, George-street for the Woolwich Equitable Building Society, 113, Powis-street, S.E.18. The contractor is Mr. R. Mansell, 17, Grant-road, Croydon. The contract for the steelwork has been let to Messrs. Bloxam and Scuffells, Ltd., of 30, Bedford-row, W.C.1. Messrs. Grace and Farmer, of 3 and 4, Wardrobe-chambers, Doctor's Commons, E.C.4, are the architects.

Croydon.—Extensions.—Mr. J. M. Sheppard, F.R.I.B.A., 38, Bedford-place, W.C.1 has been appointed architect for the preparation of plans for the erection of two villas for 50 men and 50 women respectively, at the Croydon Hospital.

Croydon.—Extension.—A contract has been entered into with Mr. R. Mansell, of 17, Grant-road, Croydon, for the extension to the Education Office buildings, Croydon, for the Corporation. The estimated price is £3,497.

Croydon.—Extensions.—Mr. Bernard J. McAdam, architect, 33, Brook Green, Hammersmith, W.6, has prepared plans for extensions to the Coloma Secondary School for Girls, Croydon.

East Ham.—The Borough Engineer to the Town Council is preparing quantities for additional accommodation for the Electricity and Tramways Department. Tenders are shortly to be invited.

Elverton-street. — Additions. — Messrs. Holophane, Ltd.'s, works are to be considerably extended. Mr. Robert Atkinson, F.R.I.B.A., 36, Bedford-square, W.C.1, is the architect.

Enfield.—Clinic.—Tenders are being invited for the erection on a site adjoining the Southbury-road Council School, Glyn-road, Ponders End, of a clinic for the Enfield Education Committee. Mr. H. R. Crabb, A.R.I.B.A., Engineer and Surveyor to the Council, has prepared the plans.

Euston-road.—Reconstruction.—A new block of modern business premises, shops and offices is to be erected on the site of 363, 365, Euston-road. The architects are Messrs. Constantine and Vernon, 82, Mortimer-street, W.1.

Fulham.—Extension.—The B.C. propose to extend the Town Hall buildings by acquiring adjoining premises in Fulham-road. The council's engineer and surveyor is Mr. A. F. Holden.

Hackney.—Premises.—New offices and stores are to be erected in Landfield-street, Rendlesham-road, for the Gloy and Empire Adhesives, Ltd., 16, Devonshire-square, E.C.2. The main contract has been placed with Messrs. H. Bradford and Sons, 37, Shacklewell-lane, E.3. The steelwork contractors are Messrs. Standard Steel Co., Ltd., 72, Purley-way, Croydon. The new buildings have been planned by Messrs. Bethell, Swannell and Durnford, architects, of 16a, Johnstreet, W.C.2.

Hornsey.—Home.—A new nurses' home is to be erected in Home Park-road, Hornsey, N.8, for the Hornsey Central Hospital Committee. The plans have been prepared by Mr. James M. Lethbridge, F.R.I.B.A., architect, 205, Archway-road, Highgate, N.6. Messrs. T. M. Deacon, Son and Addiscott, surveyors, 76, Strand, W.C.2, prepared the quantities. The builder is Mr. Albert Monk, of Edmonton, N.9, who tendered at £10,948.

Houndsditch.—Extension.—The Houndsditch Warehouse Co. are to add to their premises by erecting a new building on the site of Nos. 40 and 41. The scheme has been planned by Messrs. Lewis Solomon and Son, 21, Hart-street, Bloomsbury, W.C.1. The contractor is Mr. H. Kent, Beacon-road, S.E.13. The steelwork contract has been let to Messrs. Powers and Dean-Ransomes, Ltd., of Cubitt Town, E.14.

Islington.—Rebuilding.—Messrs. H. Kennett's premises in Liverpool-road, N.1, are to be rebuilt. The contractors are Messrs. Chessums, Ltd., Imperial Works, Portland-road, N.15. The steelwork is being supplied by Messrs. Moreland, Hayne and Co., Ltd., 80, Goswell-road, E.C.1. The scheme has been planned by Mr. H. A. Wright, architect and surveyor, 35, Pentonville-road, Islington, N.1.

Kensington.—Reconstruction.—The High-street premises of Messrs. Style and Mantle (S. and M., 1928), Ltd., of Britannia House, Old Bailey, E.C.4, are to be remodelled. The architect is Mr. A. C. Russell, 13 and 14, Basinghall-street, E.C.2.

Lower Addiscombe-road.—Convenience.—Tenders are shortly to be invited for the erection of public conveniences at the corner of Morland-road and Lower Addiscombe-road, Croydon. A sum of £3,500 has been sanctioned by the Croydon Council for the work.

Mitcham.—School.—The Croydon County Borough are to erect a new school on the Mitcham-road housing site, subject to approval. The proposed school will provide accommodation for 1,600 children. No architect or quantity surveyor has yet been appointed.

Pall Mall.—Additions.—Additions are being made to the United Service Club, at No. 116. The main contractors are Messrs. Dove Bros., Ltd., Cloudesley-place, Islington, N.1. The contract for the steelwork has been let to Messrs. Redpath, Brown and Co., Ltd., 3, Laurence Pountney-hill, E.C.4. Messrs. Thompson and Walford, Leadenhall-buildings, Leadenhall-street, E.C.3, are the architects.

Percy-street, W.1.—Alterations.—Messrs. Grande Patisserie Belge, Ltd., have acquired No. 19, which they intend to open as a restaurant. The premises are being redecorated, and the shop front in bronze is being carried out by Mr. W. Leslie Macdona, 576, Streatham High-road, S.W. The work is under the supervision of Messrs. E. and S. Smith, F.S.I., 69, Great Queen-street, Kingsway, W.C.

Richmond.—Reconstruction.—The Westminster Bank, Ltd., George-street, is to be reconstructed. Messrs. Limpus and Son, 7, Kingston-hill, Kingston, have secured the contract for the work. The plans have been prepared by Messrs. Brewer, Smith and Brewer, 11, The Green, Richmond.

Southall.—Development.—The Associated Equipment Company, of Windmill-lane, Southall, have closed the lease of land lying along the Uxbridge-road beyond the junction of the Greenford-road, held by the Southall Park Golf Club. It is proposed eventually to carry out building development there, but, apart from the establishment of a private service station, no definite plans have been decided upon.

South Kensington.—Rebuilding.—"Thurloe House," 13 and 14, Cromwell-road, S.W.7, is to be converted into self-contained flats and offices. The contractors are Messrs Hudson Bros. (Builders), Ltd., 207, St John's-hill, S.W.11. The reconstruction scheme has been planned by Mr. W. G. Hunt, F.R.I.B.A., architect, 15, Cromwell road, Fulham, S.W.7.

South Kensington.—Shops.—A large block of old shop premises, covering the site of Nos. 197, 199, 201, 203 and 205, Broughton-road, and Nos. 11 and 12, Ovington-gardens, is now in course of demolition by Mr. H. J. Moyes, 255, Clapham-road, S.W.9. On the cleared site it is proposed to erect a block of shops, showrooms and office premises to the plans prepared by Mr. R. M. Pigott, F.R.I.B.A., 44, Bedford-row, W.C.1.

Strand.—Rebuilding.—Messrs. Trehearne & Norman, Windsor House, Kingsway, W.C.2, are the architects for the rebuilding of 376-379, Strand, W.C.2. Shops and offices are to be erected on the site. The building contract has not yet been signed.

Twickenham. — Hall. — Messrs. Markby, Stewart & Wadesons, solicitors, Royal Bank-buildings, 5, Bishopsgate, E.C.2, have submitted to the Twickenham Council, on behalf of the London Diocesan Fund for a site for a church or parish hall in connection with St. Mary's.

Westminster.—Residence.—On a site now being cleared in Tufton-street, S.W.1, a large house is to be erected. The architect is Mr. A. S. G. Butler, F.R.I.B.A., 4, Francis-street, S.W.1. The contract has been let to Messrs. Gee, Walker and Slater, Ltd., of 31, St. James's-street, S.W.1, who are now carrying out the demolition work.

Wilton-crescent.—Flats.—Alterations and additions are being carried out to 1, Wilton-crescent-mews, by Mr. C. Brittain, builder and contractor. The constructional steelwork is being supplied by Messrs. Young & Co., 6, Queen Anne's-gate, S.W.1.

PATENTS

APPLICATIONS PUBLISHED.*

317,714.—Evans Bros. (Concrete), Ltd., W. R. E. Honner, and J. L. Llewelyn: Floors, roads and pavements.

317,806.—S. Farnell: Greenhouses and like horticultural structures.

317,718.—W. Savage, and Ruston & Hornsby, Ltd.: Excavating machines.

317,777.—C. Carter, and C. Hammatt: Taps for use with water-heating apparatus.

317,538.—A. W. Steward: Ventilating-apparatus.

317,902.—W. Taylor: Composition for rendering the surfaces of walls and other surfaces and for decorative purposes, and method of making same.

317,919.—Kolloidchemie Studienges, J. B. Caprzow, M. March, R. Lenzmann, and H. Sanders: Method of producing cements, building, plastering and coating materials from mud.

317,922.—W. C. Cocking: Foundations for structures.

317,957.—J. & F. Howard, Ltd., and W. H. Ashby: Hoists and other lifting-apparatus.

317,963.—Lightalloys, Ltd., and W. H. Grieve: Construction of louvre ventilator.

Note.—Period for opposition expires November 4, 1929.

*All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

RATES OF WAGES IN THE BUILDING TRADE

[Every endeavour is made to ensure accuracy but we cannot be responsible for errors.]

	Masons.	Bricklayers.	Carpenters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aldershot	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Alfreton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Alnwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashford Kent	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ashington	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Aylesbury	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Aylsham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Banbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnstaple	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Basingstoke	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Berwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bexhill	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/3½
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bradford-on-Avon	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Braintree	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Brentwood	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bridgwater	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bridlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brighton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bromsgrove	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bromyard	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bungay	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Buxton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Canterbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Carlisle	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chorley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cirencester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Clacton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Colchester	1/5½	1/5½	1/5½	2/5½	1/5½	1/5½	1/5½	1/1½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cranbrook	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cromer	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Deal	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Denbigh	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Devizes	1/4	1/4	1/4	1/4	1/4	1/3	1/4	1/0
Dewsbury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dorchester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Dorking	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dovercourt	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Driffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Droitwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dudley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
E. Glam. (Mon. Val.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ely	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Exeter	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Exmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Fakenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Felixstowe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Folkestone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Frome	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Glossop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Gloucester	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Godalming	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Goole	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Gosport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Great Yarmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harpenden	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hastings	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hatfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hednesford	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Hereford	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Herne Bay	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hertford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hitchin	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hoddesdon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Holt	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hunstanton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Huntingdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Isle of Wight	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Ipswich	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Keighley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Kettering	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kidderminster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
King's Lynn	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leighton-Buzzard	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Littlehampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Liverpool	1/9	1/9	1/9	1/10	1/9	1/9	1/9	1/3½
Llandudno	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London:								
12 m. radius	1/9	1/9	1/9	1/9*	1/9	1/9	1/8	1/4
12-15 m. radius	1/8½	1/8½	1/8½	1/8½*	1/8½	1/8½	1/7½	1/3½
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lowestoft	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Luton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Macclesfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Malvern	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Margate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Market Harb'rough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Matlock	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Melton Constable	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Melton Mowbray	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newark	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newbury	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-ur-Lyme	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
New Forest	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newmarket	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Norwich	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Nuneaton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5½	1/5½	1/5½	1/6½	1/6½	1/5½	1/5½	1/1½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Paignton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Peterborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Plymouth	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ramsgate	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Reading	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redcar	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Redditch	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Reigate	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Retford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ripon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Saffron Walden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Sawbridgeworth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Saxmundham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sevenoaks	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sittingbourne	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Southampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southend-on-Sea	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stevenage	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stourbridge	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stourport	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Stowmarket	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Stratford-on-Avon	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stroud	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swaffham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Tamworth	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Taunton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Thetford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Torquay	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Totnes	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Trowbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Uttoxeter	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wallsend	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warminster	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Warwick	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wells (Norfolk)	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Welwyn Gar. City	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Weston-sup.-Mare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Weymouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Whitby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Winchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Windsor	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Wisbech	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Woodbridge	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worksop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Worthing	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wrexham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wroxham	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wymondham	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

* The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, is 1/11½ per hour.

For Building Trade wages in Scotland, see page 582.

CONTRACTS PLACED

Alton.—Rebuilding.—A large rebuilding scheme is under consideration in connection with the Lord Mayor Treloar Cripples' Hospital. The architect is Mr. H. C. Smart, F.R.I.B.A., 73a, Queen Victoria-street, E.C.4. The contract for the first portion has been placed in the hands of Messrs. Mills and Sons, of Steam Joinery Works, Farnham. The cost will be about £100,000.

Alton.—Extensions.—Messrs. D. J. Kemp and Sons (Alton), Ltd., 87, High-street, Alton, are the contractors for the extensions to be made to the Abbey of Our Lady and St. John. The scheme is in the hands of Sir Charles Nicholson, Bt., F.R.I.B.A., 2, New-square, Lincoln's Inn, W.C.2. The work is estimated to cost about £6,000.

Birmingham.—Extensions.—Are to be made to the premises of Messrs. Harrison in Bradford-street. The scheme has been planned by Messrs. Harrison and Cox, F.R.I.B.A., of 109, Colmore-row, Birmingham. Messrs. S. F. Swift, Ltd., 20, Alcester-street, Birmingham, are the contractors.

Bournemouth.—Reconstruction. — Scheme is in hand at the Wimborne-road premises of the Parkstone and Bournemouth Co-operative Society, Ltd. The architects are Messrs. Reynolds and Tomlins, Granville-chambers, Bournemouth. Mr. J. F. Ellen, of 430, Holdenhurst-road, is the contractor. The work is estimated to cost about £25,000.

Dorchester.—Rebuilding.—It is proposed to rebuild the Mission Hall premises in Mill-street. The contractor is Mr. C. Hellard, builder, Fordington, Dorchester. Mr. S. A. Jackson, L.R.I.B.A., architect, South-street, has prepared the plans.

Hebburn.—Factory.—Messrs. J. and W. Lowry, Corporation-street, Newcastle, are the contractors for the erection of a factory for the Bushing Co., Ltd., engineers. The plans for the new buildings have been prepared by Messrs. Cackett and Burns Dick, architects, Pilgrim House, Pilgrim-street, Newcastle-on-Tyne.

London.—Galvanising.—The Central Electricity Board has placed a contract with the Teesside Bridge and Engineering Co., Ltd., Middlesbrough, for the manufacture and galvanising of the whole of the structural steelwork in connection with the Mid-East England electricity scheme.

Newcastle-on-Tyne.—Hall.—On the site of St. James's Boxing Hall a large modern boxing and entertainment hall is to be erected. The scheme has been planned by Messrs. Cowe and Lawson, architects, Central-chambers, Chester-le-Street, Durham. Mr. J. J. Paget, Farfield-road, Washington Village, Co. Durham, is the contractor.

Newport.—Premises.—New licensed premises, to be known as the "Fox and Duck Hotel," are to be erected in Pave-lane. The promoters of the scheme are Messrs. Bents' Brewery Co., Ltd., of New Brewery, Mount-street, Stoke, Staffs. Plans for the work have been prepared by the company's staff architect, Mr. J. S. Redman. The contractor is Mr. J. Walters, Jr., Aysforth-street, Longton, who tendered at £4,500.

Thursley Church: Menace of the Death-Watch Beetle.

At Thursley Church, situated between Godalming and Hindhead, the "death-watch" beetle has been discovered at its destructive work. The church has one feature unique among Surrey churches: its timber bell turret and graceful shingled spire rise from the centre of the nave. The turret and spire, as can be seen from the interior, are supported on four great oak pillars, which rise by the walls on either side from the floor of the nave. The church has a sundial in place of a clock, and in the churchyard is the grave of the unknown sailor who was murdered at Hindhead, and whose fate is recorded on the well-known stone on the edge of the Devil's Punch Bowl.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.: Engineer, E.: Borough Architect, B.A.: Architect, A.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

OCTOBER 7.

Bingham.—Houses.—4, Cotgrave; 4, Whatton, for R.D.C. C. W. Kendrick, Housing S. Dep. £3.

Brentford and Chiswick.—Addition to muniment room, Town Hall, for U.D.C. E. Willis, E. and S.

Chipping Norton.—Sheds.—Coal sheds behind Council houses at Chadlington and Enstone, for R.D.C. S. P. Bendle, Housing Surveyor, Charlbury, Oxon.

Edinburgh.—Installation.—Electric lighting and heating installation at Portobello Secondary school enlargement, for E.C. J. A. Carfrae, architect, 3, Queen-st.

Glasgow.—Painting.—At Plantation baths and washhouse, Mair-st., for T.C. D. Stenhouse, T.C. Dep. £2 2s.

Halifax.—Filter House.—For C.B. A. C. Tipple, Borough Engineer, Crossley-st., Halifax. Dep. £2 2s.

Hull.—Heating.—Low-pressure, hot-water heating installation and domestic hot-water supply apparatus for school proposed to be erected at Flintongrove, for T.C. D. Harvey, A.R.I.B.A., City Architect. Dep. £1 1s.

Kirkcaldy.—Houses.—20 houses at Kinglassie, for D.C. W. Williamson, F.R.I.B.A., architect. Dep. £1 1s.

Shipley.—Alterations.—At public baths, Manor-lane, for U.D.C. H. Dawson, S., Somerset House.

Stowmarket.—Cottages and Streets.—Erection of 44 in the Parishes of Combs and Greeting St. Peter, for the East Stow R.D.C. Hunt & Coates, architects, 51a, Abbeygate-st., Bury St. Edmunds, and 28, Ipswich-st., Stowmarket (stating portions they wish to tender for). Dep. £3 3s.

Sunderland.—Houses.—68 five-roomed and 40 three-roomed houses at Ford estate, for C.B. B.E.

OCTOBER 8.

Donegal.—Houses.—4 houses at Ballyshannon, Co. Donegal, for Irish Sailors' and Soldiers' Land Trust. W. J. Brown, F.R.I.B.A., architect, 50, Upper Mount-st., Dublin. Dep. £3 3s.

Edinburgh.—Repairs and Materials.—At Hamilton Barracks, in Lowlands Engineer District of the Scottish Command, Commander, Royal Engineers, Lowlands District, 29, Rutland-sq., Edinburgh.

Featherstone.—Installation.—Of electric light at new Middle school and caretaker's house, for West Riding E.C. Education Officer, County Hall, Wakefield.

Hainton.—Improvements.—To school, for Lindsey E.C. Scorer, Gamble & Co., architects, Bank-st.-chams., Lincoln. Dep. £1 1s.

Leeds.—Shops.—Also offices, Guildford-st., for Corporation. G. W. Atkinson, architect, 1, Mark-lane.

London.—Internal Decorations.—At the British Museum, W.C., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Newquay.—Hospital.—Erection of Newquay and District cottage hospital and nursing home. Higman & Taylor, L. & A.R.I.B.A., architects, 5, Grovenor-place, Newquay. Dep. £3 3s.

Pertiaeighse.—Wiring.—Re-wiring of the Mental Hospital, for Committee of Management. Denis Heaney, B.E., Thurles. Dep. £5 5s.

Rotherham.—Walls.—Brick walls on Thrybergh housing site, about 550 lin. yds. in length, for R.D.C. C. O. Rawstron, E. and S.

Stockbridge.—House.—Caretakers' house, New school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Sunderland.—Telephone Exchange.—Erection of, at Bishopwearmouth, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Thurlstone.—Installation.—Electric light at new school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Werkson.—Houses.—26, North Carlton, for R.D.C. A. Edwin Hewitt, S. Dep. £2 2s.

OCTOBER 9.

***East Stow.**—Semi-detached Cottages.—Erection of 10 at Station-rd. and 4 at the Green, for the East Stow R.D.C. Hunt & Coates, architects, 51a, Abbeygate-st., Bury St. Edmunds, and 28, Ipswich-st., Stowmarket. Dep. £3 3s. stating portions for which you wish to tender.

Glamorgan.—Building.—Alterations and additions at Aberaman police station; installation of electric light at Cowbridge police station; tar paving to yards at Barry Dock police station; for C.C. W. Gough Jenkins, Deputy-clerk of the Peace, Glamorgan County Hall, Cardiff.

Harrogate.—Building.—New observation block and verandahs to scarlet fever and diphtheria blocks at Isolation Hospital, Thistle Hill, Knaresborough, for Harrogate, Knaresborough and Wetherby Joint Isolation Hospital Committee. C. E. Rivers, B.E., Municipal Offices, Harrogate.

High Ham.—Additions.—Additions and alterations to cottage at High Ham. L. Richardson, architect, Langport.

Holborn.—Balconies.—Erection of, to the wards of the Holborn and Finsbury Hospital, Archway-rd., N.19, for the Guardians of the Holborn Union. Chas J. Cross, Clerk, Guardians Offices, 53, Clerkenwell-rd., E.C.1. Dep. £2.

London.—Buildings.—Foundations, and boiler house buildings, for Hackney B.C. Borough Electrical Engineer, 18-24, Lower Clapton-rd., E.5. Dep. £3.

London.—Alterations and Extensions, etc.—To the Day Nursery and the erection of an Administrative Bungalow adjoining, at Bennett-st., Chiswick, for the Brentford and Chiswick U.D.C. Edward Willis, engineer and surveyor, Town Hall, Chiswick, W.4.

Manchester.—Baths.—Public swimming baths, Barlow-rd., Levenshulme, for T.C. City Architect. Dep. £2 2s.

Parkhurst (I. of W.).—Alterations.—At Guardians' Institution, for R.G. Master at Institution.

OCTOBER 10.

Brighton.—Telephone Exchange.—Erection of, at Preston, Brighton, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Glasgow.—School.—At Cloberhill, Knightswood, for E.C. R. Burns, Executive Officer. Dep. £1 1s.

Hertfordshire.—Extension of the County Offices at Hertford, for the Hertfordshire C.C. County Surveyor's Office, Hatfield, Herts. Dep. £1 1s.

Kirkcaldy.—Houses.—12 houses and 8 semi-detached cottages, at Windygates, for D.C. G. B. Deas, architect, Central-chambers.

Larne.—Clubhouse.—On links of Town Golf Club. S. M. Bailie, The Garage, Circular-rd., Larne.

Leighton Buzzard.—Convenience.—In Market Hall, Market-sq., for U.D.C. B. H. Robjant, S. Dep. £1 1s.

Manchester. — Conveniences. — Conveniences at Green Bank-fields; and refreshment pavilion at Platt-fields, for T.C. City Architect. Dep. £1 1s. each.

Manchester.—Installation.—Of electric lighting at Birchfields Municipal school, Rusholme, and North Manchester High School for Boys, Moston, for E.C. F. E. Warbreck Howell, T.C.

Middlewich.—Destructor.—Refuse destructor in Council yard, for U.D.C. R. L. Price, Sanitary Inspector.

Newry.—Electric Lighting.—Of Town Hall and Technical School, for U.D.C. W. M. Cronin, T.C. Dep. £2 2s.

Salford.—Plastering.—At Salford Union Infirmary, for B.G. E. H. Inchley, clerk, Poor Law Offices, Eccles New-rd.

Tottenham.—Greenhouse.—For Tottenham and Wood Green Burial Board. H. J. Roynon, Clerk to Board, Church-lane, Tottenham, N.17.

OCTOBER 11.

Bristol.—Painting.—Repairs and painting, etc., to interior of church at Eastville institution, for B.G. T. S. Lamb, clerk, St. Peter's Hospital.

Killarney.—Houses.—5-roomed houses at Moyeightragh, for U.D.C. J. Gallivan, E. Dep. £10.

OCTOBER 12.

Bradford.—Complete Washhouse Plant.—Engineer's work required in the installation at the Leeds-rd. District Baths, for the Corporation of Bradford. City Architect, Town Hall, Bradford.

Eccles.—Shelter.—On Monton-green, for T.C. B.E. and S.

OCTOBER 14.

Clutton.—Lighting.—Installation of electric light, at Institution, for B.G. J. Wayne Morgan, B., 9, Mount Stuart-sq., Cardiff. Dep. £2 2s.

Croydon.—Switch House and Reinforced Concrete Bridges.—Erection of, at the Electricity Works, Factory-lane, Croydon, for the Croydon Borough Council, Engineer and Manager, "Electric House," 38, High-st., Croydon. Dep. £1 1s.

***East Ham.**—Alterations and Additions.—To the Central Library, East Ham, for the East Ham Education Committee. A. T. Bridgewater, Borough Engineer, Town Hall, East Ham, E.6. Dep. £1 1s.

Enfield.—Clinic.—Erection of, on a site adjoining the Southbury-rd. Council school, Glyn-rd., Ponders End, for the Enfield B.C. H. R. Crabb, E. and S., Public Offices, Enfield. Dep. £5 5s.

***Hendon.**—School.—Erection of school to be known as the Orange Hill Modern Selective School, for the Hendon U.D.C. Edu. Com. Those willing to submit their names and similar work they have carried out should apply to James Anderson, Sec., Edu. Offices, The Burroughs, Hendon, N.W.4.

Leeds.—Clinic.—Harehills-lane, for E.C. Education Department (Architect's Section), Calverley-st. Dep. £1 1s.

Somercotes.—School—Council school, for Derbyshire E.C. G. H. Widdows, F.R.I.B.A., Architect to Committee, County Offices, St. Mary's Gate, Derby. Dep. £1 1s.

Whitby.—Roofing.—Complete roofing of the new Spa Pavilion at Whitby, with all necessary steel structural work and patent glazing, for U.D.C. J. R. Seward, Assoc.M.Inst.C.E., E. and S., Council Offices, Whitby. Dep. £1 1s.

OCTOBER 15.

Bangor.—Sub-stations.—Three, for T.C J Milliken, T.C.

***Bootle.** — New Greenhouse. — Erection of, in timber, in Derby Park, for Bootle B.C. Borough Engineer's Office, Town Hall, Bootle.

Bootle.—Shops.—5 houses and shops and 5 lock-up shops, on Linacre Park site, for C.B. B.E. and S. Dep. £2 2s.

Bristol.—Pavilion.—Pavilion and shelter at St. George's-pk., for T.C. L. S. McKenzie, City E. and S. Dep. £2 2s.

Colwyn Bay.—Telephone Exchange.—Erection of, at Rhos-on-Sea, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Gravesend.—Convenience.—At Town Pier, for T.C. F. T. Grant, B.E. and S.

Hazel Grove and Bramhall.—Conveniences.—Sanitary conveniences as follows: (1) At Hazel Grove, near Rising Sun Hotel, Macclesfield-rd., and (2) at Bramhall, near Victoria Hotel, Ack-lane, for U.D.C. S., 251, London-rd. Dep. £2 2s.

OCTOBER 16

Dewsbury.—Repair.—Of Wakefield-rd. "Cutting," for C.B. H. Dearden, B.E.

Enniscorthy.—Dwellings.—29 working-class dwellings, for U.D.C. S. Gallagher, T.C. Dep. £2 2s.

Somerset.—Extension of the Esplanade.—Including promenade, carriageway, lawns, footpaths, bandstand, shelters, and of a marine lake on the foreshore, with appurtenant works, for the Burnham-on-Sea U.D.C. Gower, Pimm & Partners, Council's Engineers and Architects, 72, Queen-square, Bristol. Dep. £5.

Wolverhampton. — Telephone Exchange.—Erection of, at Falling's Park, Wolverhampton, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

OCTOBER 17.

Glasgow.—Houses.—288, at M'Nair-st. and Shettleston improvement scheme, for T.C. D. Stenhouse, T.C.

Glasgow.—Houses.—192, at Torbeck-st., for T.C. D. Stenhouse, T.C.

Monmouth.—New Employment Exchange.—Erection of, at Newport, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Thornage.—Houses.—3 police-houses, at Brooke, Northrepps, and Thornage, for Norfolk C.C. S. H. Warren. C.S. Dep. £1 1s.

Winchester.—Houses.—Erection of 50, at Beggars-lane, Winchester, for the Winchester City C. P. H. Warwick, City Engineer and Surveyor's Department, Guildford, Winchester. Dep. £2.

OCTOBER 18.

Ashton-under-Lyne.—Demolition.—Also removal of material from site at present occupied by an old building belonging to them, situate in Market-st., for T.C. C. I. Baker, general manager.

Darlington.—Employment Exchange, etc.—Erection of, at Darlington, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Devon.—Houses.—Halwell (Totnes), house for police sergeant; Marytavy, house for police constable; Morchard Bishop, ditto; Wadham Cross, Molland, house for roadman, for C.C. County Architect's Office, 97, Heavitree-rd., Exeter.

Dublin.—Lighting.—Lighting of new buildings now in course of erection at Ballymastone Farm, Portrane Mental Hospital, Donabate, Co. Dublin, for Joint Committee, Grangegorman Mental Hospital. Chief Clerk, Grangegorman Mental Hospital, Dublin.

***Hounslow.**—Elementary School.—Erection of, in Cranford-lane, Heston, for the Heston and Isleworth U.D. Edu. Comm. J. G. Carey, Architect for the E.C., Public Library, Hounslow. Dep. £2 2s.

Portumna.—Building.—4 dwellinghouses and outoffices on Lands of Derryhivney, Portumna, Co. Galway for Irish Lawd Commission. John T. Brennan, Secretary, Upper Merrion-st., Dublin. Dep. £1.

OCTOBER 19.

Bristol.—School.—Secondary school at Cotham Lawn-rd., for T.C. W. S. Skinner & Sons, architects, 27, Orchard-st. Dep. £2 2s.

OCTOBER 21.

***East Ham.**—Alterations and Additions.—To the electricity station, Nelson-street, East Ham, for the East Ham B.C. A. T. Bridgewater, Borough Engineer, Town Hall, East Ham, E.6. Dep. £2 2s.

Epsom.—Central Heating.—Installation of, in connection with alterations and additions to the Wards at the Cuddington Isolation Hospital, for the Epsom (Rural), Sutton, Carshalton and Leatherhead Joint Hospital Board. A. C. Williams & Petiett, Reid's-buildings, Ashley-rd., Epsom.

***Staines.**—Houses and Roads.—Erection of 52, and roads, at Town-lane, Stanwell, for the Staines R.D.C D. C. Fidler, surveyor, London-rd., Ashford, Middlesex. Dep. £2 2s.

OCTOBER 23.

Hull.—Painting.—Certain schools, for E.C. R. C. Moore, Director of Education.

***Teddington.** — Painting. — At the National Physical Laboratory, Teddington, Middlesex, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., Westminster, S.W.1. Dep. £1 1s.

OCTOBER 24.

Lambeth.—Alterations, etc.—Widening of the entrance to the Cobbett-st. depot, Clapham-rd., S.W.8, including the pulling down of No. 6 Cobbett-st., and altering and extending the smith's shop and construction of offices, etc., for the Lambeth B.C. Osmond Cattlin, B.E., Town Hall, Brixton-hill, S.W.2.

Lambeth.—Conveniences for Children, Dwarf Wall and Railings.—At the recreation ground, High-st., Lambeth, S.E.1, for the Lambeth B.C. Osmond Cattlin, Borough Engineer, Town Hall, Brixton-hill, S.W.2.

***London.** — Museum Buildings. — Erection of studies at the National History Museum, Cromwell-rd., S.W., for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

Mickleover.—Installation.—Of heating work in Derby County Mental Hospital, Mickleover, near Derby, for Committee. Edwards & Shaw, 105, Colmore-row, Birmingham. Dep. £3 3s.

OCTOBER 25.

***Chesterfield.**—Employment Exchange.—Erection of, at Chesterfield, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1.

OCTOBER 29.

***Blackpool.**—Alterations.—To the Head Post Office, Blackpool, for the Commissioners, H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

OCTOBER 31.

Various Places.—Constructional Works and Repairs.—To the buildings, railways, roads and premises (including river banks, towpaths and shores), for the Port of London Authority. The Engineer, Port of London Authority, London, E.C.3. Dep. £3. (Cheques payable to the Treasurer.)

DECEMBER 14.

Australia. — Carving. — Carving sculpture in granite at Melbourne, Victoria, for National War Memorial of Victoria. Agent-General for Victoria, Australia. Victoria House, Melbourne-place, Strand, W.C.2.

NO DATE.

***Bognor Regis.**—Premises.—Erection of new premises in London-rd., Bognor Regis. Timothy Whites (1928), Ltd. (Construction Dept.), 30, Chandos-st., Portsmouth.

Haywards Heath.—Houses.—56, on housing estate at Bent's Wood, for U.D.C. G. Plummer, S. Dep. £2 2s.

Norwich.—Partitions.—470 sq. yds. of Portland cement plaster partitions at Thorpe Power Station, for T.C. F. M. Long, City Electrical Engineer.

Pontefract.—Houses.—Detached house, Darrington, for Mrs. Everett; extension to commercial garage, Leeds, for C. H. Pickles, Ltd.; extensions to Eagle Works, Pontefract, for Ewbank's, Ltd. Hustler & Taylor, architects, Pontefract.

Silkstone.—Installation.—Of electric light in Common school, for West Riding E.C. J. H. Crabtree, Town Hall, Penistone.

Skegness. — Painting. — Exterior of Primitive Methodist Church, Roman Bank. —. Simpson, Sunrise Hotel, Drummond-rd.

Wakefield.—Alterations to Bowling Green, for Stanley-lane End Working Men's Club, Stanley, near Wakefield. Wm. Hy. Brown, secretary.

MATERIALS, etc.

OCTOBER 9.

Littlehampton.—Water Pipes.—For U.D.C. A Shelley, clerk.

OCTOBER 10.

Hemsworth.—Pipes.—650 yds. of 21-in. dia. cast-iron spigot and socket pipes, for R.D.C. W. T. Lynam, E.

OCTOBER 11.

Durban.—Pipes.—950 cast-iron spigot and socket pipes and 4,055 cast-iron pipes, for T.C. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8526.)

Durham.—Pipes.—21,798 ft. of 13 in. internal diameter steel piping, 6,612 ft. of 7 in. external diameter steel piping, and 24 Kimberley collars, for T.B. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8525.)

Johannesburg.—Steel.—Round mild-steel bars, mild-steel channel, etc., for South African Railways and Harbours, Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8515.)

OCTOBER 12.

New Forest. — Limestone. — For R.D.C. F. Heather, S.

OCTOBER 15.

Liverpool.—Blocks.—500,000 creosoted wood paving blocks, for T.C. City E.

OCTOBER 21.

Hertford.—Road Materials.—For T.C. B.E. and S.

ENGINEERING, IRON AND STEEL

OCTOBER 7.

Lisburn.—Installation.—Pumping plant, pumping station and pump well, and laying of 9-in. rising main at Duncan's Reservoir, for U.D.C. Town Surveyor. Dep. £1.

Poole.—Tank.—Water tank and pump at Institution, Longfleet-gardens, for B.G. A. J. H. Pearce, clerk.

OCTOBER 10.

Johannesburg.—Structural Steelwork, etc.—For umbrella roofs for platforms (tender No. 1531), for the South African Railways and Harbours. (Local representation is essential.) Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8429.)

OCTOBER 11.

Leicestershire. — Reconstruction. — Of small bridge between Oadby and Wigston, in reinforced concrete and brickwork, for C.C. J. E. Blackwall, C.S., Grey Friars, Leicester.

OCTOBER 12.

Whatton.—New Bridge.—Over River Smite, at Whatton, at new by-pass on Nottingham-Grantham-rd., for Notts C.C. J. Cracroft Haller, C.S., Shire Hall, Nottingham. Dep. £2 2s.

OCTOBER 14.

London.—Steelwork.—251 tons structural steelwork for extension to carriage repair shop, for Madras and Southern Mahratta Railway Co., Ltd. Secretary, 25, Buckingham Palace-rd., Westminster, S.W.1. Dep. £1 1s.

Nottingham.—Reinforced Concrete Reservoir.—Of two million gallons capacity, in the Parish of Bramcote, about 4½ miles west of Nottingham (nearest station—Beeston, L.M. & S. Railway), for T.C. F. W. Davies, Engineer and General Manager, Nottingham Corporation Waterworks, Castle Boulevard, Nottingham. Dep. £2.

OCTOBER 15.

Cairo.—Tanks.—Two steel water tanks on steel framework tower, complete with necessary piping and fittings, as well as an electric water-level indicator, for the Egyptian Ministry of the Interior. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8372.)

Menouf.—Electric Power Station.—For Ministry of the Interior. Municipalities and Local Commissions Section, Menouf, Menoufieh Province. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. B.X. 5567.)

Uruguay.—Bridgework.—Steel sections for certain bridges, for Uruguayan State Railways Administration. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (A.X.8232.)

OCTOBER 16.

Newcastle-upon-Tyne.—Extensions.—To Riverside quay and transit shed at Albert Edward Dock, North Shields, for Tyne Improvement Commission. A. Blacklock, secretary, Bewick-st. Dep. £3 3s.

OCTOBER 17.

Carburton.—Widening.—In reinforced concrete, of two bridges over River Poulter, near School, Carburton, on Worksop and Kelham main road, for Notts C.C. J. Cracroft Haller, C.S., Shire Hall, Nottingham. Dep. £2.

Johannesburg.—Steelwork.—Structural steelwork for cargo sheds, Table Bay Harbour, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.8461.)

Santiago.—Bridgework.—488,500 metric tons of steel bridgework material, including girders, plates, braces and sections, for Chilean State Railways. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.8548.)

OCTOBER 21.

Cairo.—Bridge.—Swing bridge on the Canal Bagouriah, near Singerg, Menoufieh, for Alexandria Main Roads and Bridges Department. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8520.)

London.—Sewage.—Aeration channels, sludge settling tanks, re-aeration channels, and other works for treatment of sewage, entailing about 18,000 cub. yds. of excavation, about 10,000 cub. yds. of mass concrete, about 3,500 cub. yds. of reinforced concrete, and about 16,000 lin. ft. of reinforced concrete piles, and also drains, sludge pipes, foundations for pump-house, etc., at Northern Outfall Works, Beckton, for L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Dep. £10.

Spey.—Bridge.—Reinforced concrete bridge over River Spey, near Grantown-on-Spey, and approach roads thereto, for Inverness and Moray County Councils. Blyth & Blyth, civil engineers, 135, George-st., Edinburgh. Dep. £5 5s

Staines.—Sewerage.—8,000 yds. of 6-in., 7-in., 8-in., 9-in., 10-in., and 12-in. cast-iron and stoneware sewers and manholes, and about 3,200 yds. of 5-in., 6-in. and 8-in. cast-iron rising mains, and sewage pumping stations in cast-iron tubbing, including centrifugal pumps and electrical equipment, for R.D.C. D. C. Fidler, E. and S. Dep. £2 2s.

OCTOBER 24.

Johannesburg.—Tanks.—27 tanks, for South African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8491.)

OCTOBER 28.

Cairo.—Bridge.—Swing bridge on the Mansourieh Canal, near Sandup, for Alexandria Main Roads and Bridges Department. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X. 8521.)

OCTOBER 28.

Whitby.—Subway.—Construction of circular cast-iron lift shaft, subway, motor house, and incidental works thereto, in connection with proposed lift to foreshore, for U.D.C. J. R. Seward, E. and S. Dep. £3 3s.

OCTOBER 29.

Colombia.—Bridges.—Metal bridges, for Ministry of Public Works. Department of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. A.X.8572.)

Silsileh.—Breakwater.—Construction of Silsileh section of Port-est breakwater and of jetty of Silsileh, for Alexandria Municipality. Royal Egyptian Legation, 75, South Audley-st., W.1.

OCTOBER 31.

Brierley Hill.—Installation.—Electric light in 2 new public elementary day schools, Brettell-lane, for Staffordshire E.C. Moffett, Rosher & Mann, consulting engineers, Union-chams., Temple-row, Birmingham. Dep. £5 5s.

ROAD, SEWERAGE, AND WATER WORKS

OCTOBER 7.

Consett.—Foundations.—Demolition of property, excavation, kerbing, flagging, and laying reinforced concrete foundation and other general works in connection with reconstruction of Victoria-st., for U.D.C. T. Hutton, E. and S. Dep. £2.

Coulsdon and Purley.—Making-up.—Of Grasmere-rd., Purley, and The Grove and The Drive, Coulsdon, for U.D.C. G. A. Ballard, S. Dep. £1 1s.

Coulsdon and Purley.—Making-up.—Of Selcroft-rd., Purley, and Grange-rd. (part of), Purley Oaks, for U.D.C. G. A. Ballard, S. Dep. £1 1s.

Guildford.—Reconstruction.—Of Quarry-st. with reinforced concrete foundation and bituminous surfacing, for T.C. J. W. Hipwood, B.E. Dep. £2 2s.

Sunbury-on-Thames.—Making-up.—Of Layton's-lane for U.D.C. H. F. Coales, E. and S. Dep. £2 2s.

Sunbury-on-Thames.—Sewer.—320 yds. of 8-in. cast-iron pipe sewer in Manor-lane, for U.D.C. H. F. Coales, S. Dep. £2 2s.

Sunderland.—Roads.—1,900 lin. yds. of roads and 2,440 lin. yds. of sewers, 6-in. to 30-in., at Ford housing estate, for C.B. B.E. Dep. £5 5s.

Tilbury.—Sewer.—939 lin. yds. of patent jointed soil sewer, together with manholes, at rear of St. Chads-rd., for U.D.C. S. A. Hill-Willis, E. and S. Dep. £5.

OCTOBER 8.

Barnes.—Roads.—Church-rd., Barnes, concrete foundation works, etc.; The Terrace, Barnes, concrete foundation works, etc.; Chertsey Arterial-rd. (part of), widening and construction, for U.D.C. F. P. Kindell, E. and S. Dep. £2 2s.

Cardiff.—Sewerage.—330 lin. yds. of ware pipe sewer, with manholes, etc., off Caerphilly-rd., for T.C. City E.

Doncaster.—Reconstruction.—Of Great North-rd. (A1) from Baxter Gate to Waterdale, for C.B. F. Oscar Kirby, B.E. Dep. £5 5s.

Friern Barnet.—Reconstruction.—In stone paving of Holly Park-rd., Glenthorne-rd., Friern Barnet-lane, Finchley-park, Friern-park, for U.D.C. J. Montague Gameson, E. and S. Dep. £1 1s.

Gateshead.—Paving.—Osborne-ter. (remainder of), back Devon-gardens, East Colaridge-av., from Albert-drive to Jeffel-st., and Eastwood-gardens (path only), for C.B. F. H. Patterson, B.E.

OCTOBER 9.

Brentford and Chiswick.—Sewerage.—9-in. surface-water sewer in Cavendish-rd., Chiswick, and a 12-in. and 15-in. surface-water sewer in Windmill-rd., Brentford, for U.D.C. E. Willis, E. and S.

Dunfermline.—Reconstruction.—Reinforced concrete work, etc., for reconstruction of Townhill-rd. from Kingseathill northwards to railway-bridge, for T.C. D. H. Shaw, B.E

Ilford.—Paving.—Paving, hardcoring, making up, etc., of Martley-drive, for T.C. B.E. and S. Dep. £2 2s.

London.—Paving.—Resurfacing with 3-in. tar-macadam portions of carriageway of Queen's-gate, for Kensington B.C. B.E.

North Dublin.—Main.—Laying new cast-iron water main along Finglas-rd., from city boundary at Glasnevin cemetery, to Finglas bridge, and laying new cast-iron water main along Coolock-rd., from city boundary at Donnycarney to Coolock village, for R.D.C. F. P. Russell, C.E., 16, Westmoreland-st., Dublin. Dep. £3 3s.

Rochdale.—Paving.—Three passages off Viking-st., for C.B. B.S.

Rochdale.—Asphalt.—Laying of approx. 700 sq. yds. of granited rock asphalt in Sheriff-st., for C.B. B.S.

OCTOBER 10.

Blackpool.—Improvement.—Of Norbreck-rd., for C.B. F. Wood, B.E. and S.

Guildford.—Improvements.—To Worplesdon-rd. and Aldershot-rd., for T.C. J. W. Hipwood, B.E. Dep. £2 2s.

Leeds.—Paving.—Kerbing, tar paving footpaths, and macadamising carriageways in following:—Park-villas, Wensley-view, Wensley-green, Wensley-drive (part 1), Wensley-drive (part 3), Easterley-grove, Easterley-crescent, Hollin-gardens, Moorland-rise, also kerbing, paving, concreting, etc., Wetherby-rd., and kerbing, flagging, paving, concreting, etc., in New-rd. (Sheepscar to Cross Stamford-st.), Burley-st. improvement, for T.C. E. W. Cockerlyne, Highways Engineer. Dep. £1 1s.

OCTOBER 11.

Merton and Morden.—Paving.—Cedars-rd., and sewering Florence-av., for U.D.C. G. Jarram. Dep. £1 each.

St. Mellons.—Improvements.—Of (1) Downton-rd., Rumney, between Church-rd. and The Green; and (2) Marshfield-rd., between County-rd., Castleton, and Marshfield-station, for R.D.C. Thomas & Morgan and Partners, civil engineers, Pontypridd. Dep. £5 5s.

Slough.—Laying-out.—Of Cemetery, for U.D.C. A. Bromly, E. and S.

OCTOBER 12.

Tadcaster.—Extension.—Providing and laying cast-iron water mains, with valves, hydrants, etc., complete, as follows: Bank Cottage, The Boyle, 248 yds. 4-in. S. and S. concrete lined pipes, and Wellington-hill, 60 yds. 3-in. S. and S. cast-iron pipes, for R.D.C. E. Thackray, Water Inspector, Station-rd., Kippax, near Leeds.

OCTOBER 14.

Brighouse.—Reconstruction.—Of Bradford and Huddersfield main road, from Bonegate-rd. to Oddfellows-st., for T.C. S. S. Haywood, B.E. and S. Dep. £1 1s.

Saddleworth.—Sewers.—(1) About 129 yds. of 6-in. stoneware pipe sewer with manholes, etc.; (2) about 1164 yds. 6-in. stoneware pipe sewer with manholes, etc., at Shaw Hall, Greenfield, for U.D.C. J. H. Reynolds, S.

OCTOBER 17.

Stratton and Bude.—Improvements.—Removal of banks for widening and improving surface of roadway from Vicarage-rd., Bude, to Upton Cross, Bude, and construction and laying of sewer in Lunston-rd., Bude, for U.D.C. S., Belle Vue-av.

OCTOBER 18.

West Kent.—Sewer.—4,668 yds. of concrete tube sewer, 18 in. and 15 in. dia., together with manholes and other incidental works, in parish of Cudham, for Main Sewerage Board. A. B. Coomber, secretary, Offices of the Board, Park House, Bromley. Dep. £3 3s.

OCTOBER 19.

Mablethorpe.—Making-up.—Of George-st., for U.D.C. R. W. Maughan, E. and S. Dep. £2 2s.

OCTOBER 21.

Belfast.—Pipes.—Circulating water pipes, for C.B. F. H. Whysall, City Electrical Engineer. Dep. £2 2s.

OCTOBER 22.

Woodford.—Piping.—In of ditch, forming new footpath, and the erection of fencing in Chigwell-rd., Woodford, for U.D.C. A. D. Ward, S. Dep. £2 2s.

OCTOBER 23.

London.—Making-up.—Portions of Argyle-place, for Hammersmith B.C. R. Hampton Clucas, B.E. and S.

OCTOBER 25.

Coulsdon and Purley.—Sewering.—Also resurfacing portion of Chipstead Valley-rd., Coulsdon, for U.D.C. G. A. Ballard, S. Dep. £2 2s.

Auction Sales, Tenders, etc.

OCTOBER 7.

Wadebridge.—P. J. Menheniitt will sell adjoining Railway Station, also remaining Prison Buildings, Valuable Building Materials, secured on the demolition of some of the Prison Buildings, Auctioneer, Wadebridge, Cornwall.

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OCTOBER 8.

Guildford.—Alfred Savill & Sons will sell at the Lion Hotel, Guildford (unless previously sold by private treaty), freehold building estate, about 2,438 acres, including residence, stabling, garages and cottages, about 16½ acres. Auctioneers, 51a, Lincoln's Inn-fields, W.C.2, and at Guildford.

London.—Fuller, Horsey, Sons & Cassell will sell, at the Merchants' Hall, Baltic Exchange, E.C. (on account of the completion of the contracts for the new P.L.A. Docks at Tilbury and Millwall), by order of Sir Robert McAlpine & Sons (London), Ltd., Contractors' Plant, Machinery and Material. Auctioneers, 11, Billiter-sq., Fenchurch-st., E.C.3.

OCTOBER 9.

***Richmond.**—Penningtons will sell (by order of the owner, who is retiring from business), at Town Garage, Kew Foot-rd., Richmond, Plant and Stock of a Builder and Decorator. Auctioneers, Railway Stations, Richmond.

OCTOBER 10.

***London.**—Veryard & Yates will sell, at North Circular-rd., Cricklewood, N.W. (near Staples' Corner and close to "Welsh Harp"), Contractor's Plant and Rolling Stock. Auctioneers, 395, Norwood-rd., S.E.27.

OCTOBER 15.

***Weybridge.**—Hampton & Sons will sell at the St. James' Estate Rooms, 20, St. James'-sq., S.W.1 (unless sold privately) in 22 lots, remaining portions of The Wey Manor Estate, West Weybridge. Auctioneers, 20, St. James'-sq., S.W.1.

OCTOBER.

Croydon.—Blake, Son & Williams will sell (unless previously sold), October next, main road site of nearly 40,000 sq. ft., with 186 ft. frontage in thickly populated district. Vacant possession. Auctioneers, 43, 45, High-street, Croydon.

For Sale by Private Treaty.

Harefield.—Henry Butcher & Co., will sell, by Private Treaty, as a whole or in sections, by Order of Bells United Asbestos Co., Ltd., the Freehold Factory Buildings known as "Harefield Mills," Harefield, Middlesex, ground area of 23 acres, together with other buildings and sports ground, etc., and 110 acres of gravel land. Auctioneers, 63 and 64, Chancery-lane, London, W.C.2.

Public Appointments

OCTOBER 7.

Lancashire.—Senior and Junior Draughtsman required in the County Architect's Department, for a period of two or three years, by the Lancashire County Council. S. Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston.

Loughborough.—Clerk of Works required in connection with Housing Estate, by the Loughborough Corporation. Harry Perkins, T.C., Town Hall, Loughborough.

OCTOBER 8.

Bradford.—Temporary Architectural Assistant required in the City Architect's dept., by the Bradford City Council. City Architect, Town Hall, Bradford.

OCTOBER 9.

Hounslow.—Architectural Assistant required by the Heston and Isleworth Urban District Council in the Engineer's and Surveyor's Department. H. J. Baker, Clerk, Council House, Hounslow.

OCTOBER 10.

London.—Qualified Architects and Quantity Surveyors for appointment on the staff of the Miners' Welfare Committee. Under Secretary for Mines, Establishment Branch, Mines Dept., Dean Stanley-st., London, S.W.1.

OCTOBER 12.

Salop.—County Architect required by the Salop C.C., to supervise and control the County Architectural Department. Arthur Ainslie Johnson, Clerk, Shirehall, Shrewsbury.

OCTOBER 16.

***Nuneaton.**—Junior Architect Assistant (3 years certain engagement), required by the Nuneaton B.C. R. C. Moon, Borough Surveyor, Municipal Offices, Nuneaton.

OCTOBER 25.

***Greenwich.**—Junior Technical Assistant in the Borough Engineers' Department required by the Greenwich B.C. Frederick J. Simpson, T.C., Town Hall, Greenwich, S.E.10.

NO DATE.

***East Ham.**—Teacher of Builders' Quantities on one evening per week required by the East Ham Education Committee. F. R. Thompson, Secretary, Education Office, Town Hall, East Ham, E.6.

***Federated Malay States.**—Chief Inspector of Waterworks required by the Government of the Federated Malay States, for a period of four years, with possible permanency. Apply, at once, by letter, Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting M. 1713.

PROPOSED NEW BUILDINGS & OTHER WORKS*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians, B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education, M.A.B. for Metropolitan Asylums Board; and M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; County Architect, C.A.; Surveyor, S.; Engineer, E.; Borough Architect, B.A.: Architect, A.

Accrington.—B.S. submit amended plans to B. of E. for Council school at Richmond Hill.

Adwick.—West Riding E.C. are now to build secondary school at Scawthorpe instead of previous site.

Ashford (Kent).—Hospital Fund Committee decided to form a sub-committee to consider plans for hostel.

Ballydrain.—Tenders being invited for school. Plans by Castor J. Love, architect.

Barking Town.—L.M.S. informed U.D.C. of proposal to widen 3 railway bridges in connection with Barking-Upminster railway widening.—Substation approved at eastern end of Lambourne-rd.—Committee been formed to consider alternative site for infectious diseases hospital.—Architect estimates 261 houses and flats on second portion of Upney estate at £108,430.—Council recommend application to M.H. for £7,300 for temporary school on Barking section of Becontree estate.—Plans passed: 6 houses, Alfred's-way, County of London Electric Supply Co., Ltd.; amended layout around school site of 12 (Barking) section, Becontree estate, for L.C.C.; drainage, 166 houses, 12 (Barking) section, Becontree estate, for L.C.C.; new street adjoining River-rd. and By-Pass, for Suburban Developments (London), Ltd.; 14 houses, Upney-lane, J. Ranson.

Barnsley.—Mr. C. F. Moxon, architect, Regent-chams., Regent-st. South, prepared plans for premises, Grahams Orchard, for Harrals Stores, Ltd.

Barrow.—R.D.C. received sanction of M.H. to £4,550 and £7,460 for houses in parishes of Birstall and Mountsorrel respectively.

Bath.—T.C. to purchase land in Shophouse-lane, Tiverton, for housing.—City E. authorised to undertake repair of North Parade bridge west lodge, Grosvenor bridge lodge and Weston bridge lodge.

Bedford.—Branch premises are to be erected Cauldwell-st. for Westminster Bank, Ltd., of 41, Lothbury, London, E.C.2. Searle & Searle, Paternoster-row, E.C.4, architects.

Beeding.—Estimated cost of £2,500, village hall is to be provided for Beeding and Bramber, Sussex.

Belfast.—Sub-committee appointed by Lisburn and Belfast Regional Committee to consider school accommodation in rural area recommends new school at Mallusk, to accommodate 200; new school near County Council Red Shed at Ballyhenry, to accommodate 400 to 500; school at Whitewell, to accommodate 400 to 500.

Billingham.—Application to be made to M.H. by U.D.C. for £10,000 for the purchase of land for housing schemes.—U.D.C. has decided to erect a further 88 houses.

Birmingham.—It is proposed shortly to erect a number of houses at Stechford. Plans by H. H. Robinson, 41, Temple-row.

Black Notley.—Staff accommodation at new sanatorium been recommended by Essex C.C. at £3,000.

Blackpool.—T.C. approved: 7 houses, Maitland-av., Hawthorne & Bloor; 5 houses, Collingwood-av., J. Tomlinson; 6 bungalows, Collins-av., T. Riley; 8 houses, Thirsk-grove, Parker & Allen; 11 houses, Hemingway, Corporation; amusement hall, Coronation-st. Blackpool Winter Gardens and Pavilion Co., Ltd.; church, Newton-drive, Rev. McManus.

Bolton.—Primary Sub-Committee E.C. approved scheme for Whitecroft-rd. school.

Bolton.—T.C. approved: Bolton Cinematograph Co., Ltd., dressing-rooms, Rumworth Cinema, St. Helens-rd.; M. Welch, 13 houses, off Ellesmere-rd.; Winder Bros., 6 houses, off Oakenbottom-rd.

Bradford.—Plans been approved for the Spiritual church for the Barkfoot National Spiritual Church Trustees in Bowling Old-lane. Tenders to be invited.

Bridgwater.—Somerset E.C. proposing new school.

Bridlington.—T.C. approved: J. E. Wray, 4 houses, with garages, New-rd., Queensgate; F. Johnson, store and warehouse, Medina house, Station-rd., Auzlene, Ltd.

Bromfield.—Accommodation for handicraft is to be provided at school for Essex E.C. at £280.

Buxton.—Managers, Bishop Pursglove Foundation School, Ash House, Tideswell, near Buxton, proposing central school in Tideswell. J. H. Widdows, St. Mary's-gate, Derby, architect.

Carrickfergus.—Plans for extensions to school for Larne Regional E.C. been prepared.

Cheadle.—Cheshire C.C. proposing carry out Education scheme for Cheadle district. Plans by County Architect, Anstead Browne, F.R.I.B.A., 18, Newgate, Chester.

Chelmsford.—B.S. is to prepare plans for more houses on Boarded Barns estate.

Cheltenham.—On land in Pilley-lane, 103 non-parlour type of houses to be erected. Plans by T. Malvern, L.R.I.B.A., 21, Winchcomb-st.

Chester.—T.C. received formal sanction from M.H. to borrowing £7,996 for shops at Handbridge.—Plans passed: Extensions premises of Pratt, Levick & Co., Ltd., Tower Fields, Walls-av.; additions, Deanery Cottage, Abbey-st., Dean and Chapter of Chester Cathedral.

Chingford.—New senior school is to be erected by Essex E.C. at £19,343.

Chipping Sodbury.—Council propose 10 more houses.

Clacton-on-Sea.—Essex E.C. recommend senior school at £21,922.

Clitheroe.—T.C. decided that new school to be built on Brownlow-st. site. Plans by B.S.

Colchester.—Essex E.C. recommend alterations to entrance and gates at Technical College.

Colchester.—Pavilion is to be erected in Castle-park by Corporation. Architects, Duncan W. Clark & Beckett, West Stockwell-st.

Colne.—Higher Education Sub-committee, Lancashire C.C., sanctioned pavilion Colne Secondary Schools playing-fields. Plans by County Architect, Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

Cookham.—Housing scheme is shortly to be put in hand by Cripps & Green, Ltd. Site is near Heywood Park corner.

Coventry.—E.C. recommend approval to erection new department at Stoke Council School, at £17,675. Application is to be made to M.H. for sanction.—In connection with municipal aerodrome scheme and other matters, Home Farm, Baginton, is to be purchased at £12,850, and application is to be made to M.H. for sanction.

Crossgates.—Tenders to be invited for R.C. day school to accommodate 250 scholars. Plans by T.C. Architects, Empsall, Clarkson & Clarke, Piece Hall-yard, Bradford.

Croydon.—Electricity Commissioners enclosed sanction to borrowing £70,000 for buildings, civil engineering works and concrete cooling tower.—M.H. sanctioned following: £29,900, erection of Lodge-rd. Council school; £1,235, cycle shed and tar-paving at Heath Clark Council school; and £3,468, extension of education offices.—Central Electricity Board to acquire site at Stubbs Mead allotments for electric sub-station.—Plans passed: G. Poulton & Son, 11, Westbrook-rd., 8 houses, Beauchamp-rd.; L. Poole, 29, New Bridge-st., E.C.4, shops with showrooms over, London and Brigstock-rds.; Corporation, 5 shops with living rooms over, Mitcham-rd., at Purley-way; Corporation, slipper baths, washhouses and conveniences, Mitcham-rd., at Thornton-rd.; E. Bates, 27, Queen Victoria-st., E.C., shop and offices, 72, North-end; Paish Tyler & Crump, East Croydon, addition to school, Oakwood school, Shirley-rd.; International Tea Stores, Ltd., Mitre-square, E.C.3, shops with flats over, store and garage, 69-71, South-end; H. & D. Winn, Grange-gardens, 7 houses and garages, 5-17, Grange-gardens; K. Wood & C. Rose, 20, The Broadway, Woking, shop with rooms over and stores, 73, South-end; J. T. R. Wildman, 189, Regent-st., W.1, film factory, Waddon-mills; Creed & Co., Ltd., Cherry Orchard-rd., sub-station, Colson-rd.; H. Macintosh, East Croydon, 50 houses and garages, Hillcote-av., Covington and Crescent Ways, and Gibsons-hill; W. H. Beckett, 151, Harrington-rd., 6 houses, Grange-av.; S. Boothman, Abbotsleigh-rd., S.W.16, house, garages and workshop, Fairview-rd.; Grace and Marsh, Purley-way, factory addition, Aurelia-rd.; J. H. Pearson, 101, Norbury-crescent, 10 houses and 4 garages, Turle-rd. and Benet-gardens; Central Estates Co., Ltd., Kenton, Harrow, 318 houses, Woodvale, Sundial, Norhyrst and Southern-avs., Lancaster and Court-rds.; Burcote, Ltd., Lower Addiscombe-rd., 4 shops with rooms over, Wickham-rd.; J. H. Pearson, 101 Norbury-crescent, 10 houses and 2 garages, Turle-rd.; Smith & Co., 36, Winterbourne-rd., 4 houses, Coombe-lane; A. Duckit, 2, Fairlands-av., 13 houses, Ashley-rd.; A. Andrews, 101, Lebanon-rd., 10 houses, 1 house and shop and 3 garages, Zermatt-rd.; British Oliver Typewriter Co., Gloucester-rd., factory addition and lavatories, Gloucester-rd.; H. & W. Bourne, Ltd., Spring-lane, factory addition, Spring-lane; G. E. Fletcher, 17, Pollards-hill South, garages, Pollards-hill South; L. Cox (Mrs.), 10, Luna-rd., 12 garages, w.c. and workshop, 10, Luna-rd.; T. H. Jones, "Dovercourt," Alexandra-rd., Farnborough, 56 houses, Selsdon Park-rd. and 2 New rds. adj.; C. H. Ridge, 8-10, Katharine-st., alterations and additions, "Rising Sun," North End; J. R. Wegster, 121, Selsdon-rd., mission hall, Bensham-lane; A. Duckit, 2, Fairlands-av., amended lay-out 12 houses, Ashley-rd.; London Electric Supply Co., 47, New Broad-st., E.C., sub-station, Ballards-way; Grant Bros., High-st., business premises extensions, Surrey and Middlesex.

Dagenham.—U.D.C. approved: 8 houses, Bolton's Farm estate, Chadwell Heath, C. W. Vaughan; social welfare hall, Hobart-rd., Dagenham, for Miss M. Lester.

Devon.—Bridges and Main Roads Committee recommend reconstruction schemes and unemployment proposals at £132,000.

Dewsbury.—Dewsbury and Heckmondwike Joint Water Board been requested proceed with reservoir at Durnford.

Doncaster.—Funds being raised by members Stainforth Parish Church for edifice. Architect not yet appointed.

Downpatrick.—R.D.C. instructed Castor Love, architect, to prepare plans for 350 cottages.

Downpatrick.—R.D.C. instructed J. Castor Love, Burrish-st. Plans by C. T. Butler, B.S. Application is to be made to Ministry for £18,000.

Dukinfield.—T.C. proposing further housing schemes on land acquired on site between Higher King-st. and Dewsnap-lane. Subject to M.H. Plans for 100 houses on a new road. Surveyor, E. N. Stanion.

Durham.—G. Bell, architect, Central-chams., Whitby-st., West Hartlepool, prepared plans for Baptist Church at Easington Colliery.

Dursley.—R. A. Lister & Co., Ltd., of Dursley, Gloucestershire, decided to erect new foundry.

East Ham.—B.C. approved recommendations regarding alteration proposed by M.H. at Isolation Hospital.—Plans passed: 5 shops (lock-up), rear 632, Romford-rd., H. Johnston; factory, 496, Barking-rd., W. Allison; 11 lock-up garages, vacant land north 319, Burges-rd., Wade & Jennings; 20 lock-up garages, Vine Cottage, Ranelagh-rd., W. Sellar; block plan amended, 12-18, Charles-rd., 5-17, Charles-rd., 109-121, Dorset-rd., H. W. Binns.

Eccles.—T.C. approved: 15 houses in Woodfield-grove, Patricroft, W. A. Norman, 19, Eldon-place, Patricroft; cloakrooms, latrines, water-closets, etc., attached to St. Mary's R.C. School, Church-st.

Egham.—U.D.C. recommended construction bathing pavilion at Runnemede pleasure ground at £1,600. Building Inspector has prepared plans.

Eton.—R.D.C. approved: Farnham Royal—new offices in Farnham-rd., for Shell Mex, Ltd.; 5-bay factory, in Liverpool-rd., for Slough Estates, Ltd.; 12 houses, Carlisle-rd., Bishop & Brett, Denham—houses, F. Greaves & L. C. Cherrington, Stoke Poges—transformer chamber, Roger's-lane, W. J. Pimblett; 4 houses, Bath-rd., Ditton, A. F. Hallet; 10, Stoke Poges-lane, P. Ellis & Co. Ivor—transformer chamber in Thorney-lane, Everlasting Tile, Concrete, Fence and Products, Ltd.; farm buildings, cow sheds and dairy, Coppins Estate, for Princess Victoria; 38 cottages, Richings Park Estate, Ltd. Burnham—10 houses, Taplow Station estate, W. G. Eyles. Datchet—extension of Mission Hall in Horton-rd., G. Avis, on behalf of trustees; building, Ditton Park-rd., for F. E. Lutkin.

Fleetwood.—U.D.C. decided to submit to Unemployment Grants Committee scheme involving £10,000 on sea defence works.

Formby.—Surveyor to U.D.C. been instructed prepare plans for houses up to 22 on New-rd. site.

Gloucester.—Hostel in connection with the Training College of Domestic Science is to be erected. Plans by R. S. Phillips, County Education Architect, Shire Hall, Gloucester. Cost about £39,000.

Goole.—Development of north side of West Dock at Goole by L.M.S. Rly. Co., who are proposing to spend £110,000 on new sheds, cranes, and loading appliances and additional sidings, referred to at meeting of Chamber of Commerce and Shipping.

Guildford.—Electricity works are to be extended for requirements of Central Electricity Board.

Guildford.—Education Committee are seeking a site for the establishment of a technical institute.

Halifax.—Conservative Association acquired Prescott House for new headquarters. Structural alterations will be carried out.—C. H. Petty, architect, 12, Waterhouse-st., prepared plans for extensions, Crossley & Porter Orphan Schools, Saville-park.

Halifax.—Plans submitted by B.E. for development of Bull Green site been approved by Improvement Committee, who request Council to sanction application for £35,500 for work.—M.H. sanctioned borrowing of £4,709 for sanatorium for children at Shelf, together with additions to administrative block. Sanction also been received to borrowing £2,756 for public sanitary conveniences.

Harlow.—For rebuilding bridge Essex C.C. recommend £10,500.

Hawkwell.—For repairs to school Essex E.C. recommend £130.

Hendon.—R.D.C. approved plans by C. B. Heygate for 159 houses at Highview estate, Hale-lane, Edgware, and 54, at The Grove, Broadfields Manor.

Hunslet.—It is proposed to erect nursery school to accommodate 105 children in Thwaite-gate for E.C. Architect, F. Broadbent.

Ilford.—Essex E.C. recommend £150 for additional cycle accommodation of the Boys' High school.

Irlam.—U.D.C. decided to erect 50 more houses by direct labour on site near Co-operative Wholesale Society's factory.

Kent.—Schemes under consideration by E.C. for erection of seven new schools. W. H. Robinson, O.B.E., Sessions House, Maidstone, is Council's school architect.

Lancs.—Extensions to premises of Porritts & Spencer, Sunnybank Mill, Helmshore. Architects, A. Hopkinson & Son, 30, Crompton-st., Bury.

Larne (Ireland).—Postmaster-Surveyor has agreed to new post office.

Leeds.—E.C. decided upon new clinic at York-rd. end of Harehills-lane. Plans by Education Dept. Tenders being invited.

Liverpool.—Church is to be erected in Norris Green district for Church of England Authorities. Plans by B. A. Miller, A.R.I.B.A., architect, 40, Clanmore-rd., Broxton, Birkenhead. Estimated cost £16,000.

Liverpool.—Corporation to purchase land at £91,000 subject to M.H. at Score-lane.—Assistant Secretary, M.H., given formal sanction to £2,400 for purchase of land, north of old Stanley Athletic Ground, for public abattoir.—Land Steward and Surveyor prepared plans for: school, Whitefield

* See also our List of Contracts, Competitions, etc.

rd.; meal centre, Norris Green estate, and manual instruction centre, New Hall-lane Council school.

London (City).—Corporation to spend £500 on renovating marble floors at Central Criminal Court, and clean and repolish marble wall surfaces throughout building.

London (Bermondsey).—B.C. approved: J. & D. Hamilton, Ltd., 15, Great St. Helens, E.C.3, lock-up garages, yard, rear of 14 and 14a, Tranton-rd.

London (Shepherd's Bush).—Kensington B.C. approved London Power Co., Ltd., erecting transformer house at Council's depot, Wood-lane, W.12.

Loughton.—Branch premises are to be erected for the Westminster Bank, Ltd., of 41, Lothbury, E.C.2. J. Craddock Perkins, 25, Alkham-rd., N.16, architect.

Manchester.—Pye & Bennett, 2, Booth-st., architects for vicarage in grounds surrounding church at Gorton for Rev. R. H. Royle. Estimated cost £3,000.

Manchester.—A £50,000 scheme for baths and washhouses on site of old barracks in Chester-rd. being considered by Baths and Washhouses Committee.

Manchester.—Extension of Ducie-av. Central School and works for the unemployed are included in proposed schemes by T.C.

Marsden.—Congregation of Congregational Chapel proposing replace existing chapel with new one. Plans by W. J. Morley & Son, architects and surveyors, 269, Swan Arcade, Bradford. Seating accommodation for 420 scholars.

Meath.—Board of Health approved proposal that Meath C.C. be asked to borrow £25,000 for erection labourers' cottages.

Middleton.—It is proposed to erect a new R.C. school at accommodate 250 children. Leeds E.C. propose extensions at infants' block of Council school.

Monkwearmouth.—Hospital is to be erected on Ashville site in Newcastle-rd. Plans are in the hands of Geo. L. Martin, architect.

Mytholmroyd.—The Surveyor been instructed to prepare scheme for filling whole of remaining land on housing site with houses.

Nelson.—In connection with Secondary School which is being erected separate gymnasium is to be built. Plans under Lancashire C.C. by Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

Newcastle-upon-Tyne.—Plans for chapel and crematorium at new cemetery at Benwell being considered by Cemeteries Committee.

Newport (Mon).—A. Buchan & Co., Brewery, Rhymney, are to rebuild "Railway Inn" in Thomas-st. Architects, Griggs & Vaughan, Metropolitan Bank-chams., Commercial-st.

Newry.—County Down E.C. decided to ask new tenders for alterations and additions at intermediate school.

Nottingham.—Public Libraries Committee passed provisionally plans for extension of central library in Sherwood-st.

Oldham.—B.E. preparing scheme for public washhouse on land adjoining Hollinwood Baths.

Oldbury.—U.D.C. approved: A. Sandilands, Castle-rd., 18 houses.

Plymouth.—Alterations are to be made to fur store in George-st. Architects, Smith & Barley, of "Goodbody's Cafe," George-st.

Plymouth.—C.B. to invite tenders for 10 flats at corner of New-st. and Pin-lane.

Rochdale.—M.H. approved £20,140 for Council school at Norden. Plans by County Architect, Stephen Wilkinson, F.R.I.B.A., 16, Ribblesdale-place, Preston.

Redditch.—Extensions are to be made to works of H. Terry & Sons, Ltd., of Novelty Works. Welfare centre is to be included. Architect, F. W. B. York, F.R.I.B.A., Queen's College-bldgs., Paradise-st., Birmingham.

Sheffield.—Parochial Council of Christ Church, Dore, proposing clergy vestry to church Plans by A. W. Lusby, A.R.I.B.A., 34, Campo-lane.

Sheffield.—T.C. approved: 42 houses (Scheme 6), Wybourn estate, for Corporation; 5 houses, Foldslane, Bingham & Worthington; 4 houses and garages, Dobcroft-rd., J. W. Ardern; 6 houses and garages, Delph House-rd., T. & W. Simpson.

Slaithwaite.—B.B.C., Savoy-hill, W.C.2, under consideration new Northern Regional Station at Moorside Edge.

Slough.—U.D.C. approved: Sunday school in Stoke Poges-lane, W. C. Edwards; sub-station building, Montem estate, Bath-rd., Slough and Datchet Electric Supply Co., Ltd.; extensions and alterations at "Queen of England," Park-st., T. Wethered & Sons.

Stockport.—Extensions and additions to premises, Welkin-rd., Lower Bredbury. Cruickshank & Seward, architects, Booth-st., Manchester.

Stourport.—T. B. Worth & Sons' premises to be extended. Plans by J. Stott & Sons, architects, 34, Clegg-st., Oldham.

Sunderland.—T.C. approved plans prepared by W. & T. R. Milburn, architects, for extension machine room, Hendon Paper Works, and G. T. Brown, architect, extension offices, Wear Flint Glass Works.

Sunderland.—Sunderland is to have another new housing estate. Plans been prepared for development 40 acres at Bainbridge Holme, on Alexander-rd., for about 300 houses. Land is owned by R. L. S. Pemberton, and architect is G. Talbot Brown.

Sutton Coldfield.—T.C. approved: 6 houses, Chester-rd., F. & H. Judd; 6 houses, Signal Hayes-rd., R. H. Bridge; 8 houses, Hollyfield-rd., Davis & Son, Ltd.

Swindon.—Kingshill House, which T.C. acquired, is to be converted into maternity hospital. Plans by R. J. Beswick & Sons, 10, Victoria-rd.

Tolchill.—R.D.C. approved: 6 houses, A. & W. J. Mason, Sowe-lane, Binley; 6 houses, E. Carr, Hermitage-rd., Wyken.

Twickenham.—M.H. sanctioned application by T.C. for £3,000 for flats at junction of Elmsleigh and Staines-rds.—Council approved 188 houses on north-east side of Nelson-rd.—B.E. instructed to prepare plans for permanent tower for fire brigade at London-rd. depot.

Tynemouth.—T.C. approved: 6 semi-detached houses, Dene-rd., Tynemouth, A. K. Tasker, for H. D. Burton, Ltd.

Uxbridge.—U.D.C. approved: Vine-lane, Hillingdon East—12 houses, R. T. Warren; Ickenham-rd., Hillingdon East—development plans, for Unit Construction Co., Ltd.; road No. 1, off Ickenham-rd.—4 houses, Unit Construction Co., Ltd.; Turnpike-lane, Uxbridge—3 pairs of houses, T. Presland.

Wallsend.—Hetherington, architects, County-chams., Westgate-rd., Newcastle-on-Tyne, prepared plans for factory.

Walthamstow.—Sum of £150 been recommended by Essex E.C. for additional lavatory at Girls' Commercial school.

Wanstead.—For fencing at County High school Essex E.C. recommend £130.

Warwick.—Warwickshire C.C. approved plans by County Architect, A. C. Bunch, F.R.I.B.A., 27, Binswood-av., Leamington Spa, for open air ward to provide accommodation for 30 additional beds, at £1,958.

Warwickshire.—Preliminary plans and estimates are being considered for following schemes:—additions to Baddesley Ensor Council school, £13,800; additions to Balsall-st. Council school, £5,600; additions to Snitterfield Council school, £800; Kenilworth new central school, £14,600; Solihull (Malvern Hall) high schools for girls, £41,472

Warwickshire.—C.C. are to spend large amounts on road and bridge improvement schemes.

Warrington.—Plans being prepared by B.S. for pavilion and tennis-courts at Bewsey playing-fields. Cost £3,300.

West Riding.—C.C. proposing elementary school at Darton to cost £20,000. Accommodation for 360 scholars. C.A., Mr. H. Wormald, A.R.I.B.A., County Hall, Wakefield.

Weymouth.—Scheme of extensions is proposed in connection with Grammar School.

Wickford.—Four additional classrooms to be provided at school by Essex E.C. at £3,428.

Willerby.—Alterations and additions at Mental Hospital. Plans by City Architect, D. Harvey, A.R.I.B.A.

Wix.—Essex E.C. recommend new junior school at £3,654.

Woodford.—Repairs, etc., to clinic been recommended by Essex E.C. at £437.—£14,582 been recommended also for Snake-lane reconstruction.

TRADE NEWS

English Machinery in Colonial Territory.

It is interesting to note that the workshops of the above railway, which were formally opened in the early part of this year, are fitted up in the woodworking section with "Robinson" machinery. Messrs. Thomas Robinson & Son, Ltd., whose works are at Rochdale, have also received an order for the installation of their vacuum dust-collecting system in these works.

Steel Tubular Scaffolding.

We have received from Messrs. The Steel Scaffolding Co., Ltd., a folder descriptive of their standard steel tubing for scaffolds. We learn that the aim in design has been simplicity, as every piece of tubing is interlocking by means of standard joint pins and couplers. For right-angle work, a scaffold is securely fastened to the building by means of tubes passed through the windows and coupled to the scaffolding. For ordinary use, standards should be 8 ft. apart, but for heavier work, standards should be set 6 ft. apart. Builders will also be interested in the company's patented guard-board clip, which is claimed to eliminate the need for nailing or lashing guard- and toe-boards. Full details may be obtained from Imperial House, 80, Regent-street, W.1.

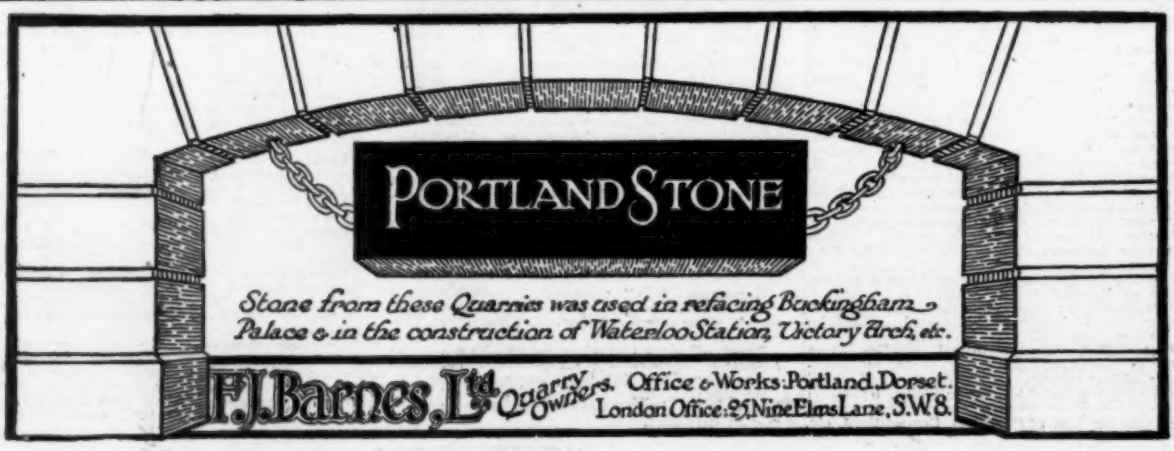
Changes of Address.

We learn that Messrs. Cowan Hulbert, Ltd., are making a special display of their building specialities at their new premises, New Oxford House, Hart-street, W.C.1 (Telephone: Holborn 9991-5). Chief amongst these are the "Insley" concrete placing equipment and the ½ cubic yard excavator; "Rex" high-speed concrete mixer; "Novo" hoists, pumps and industrial engines, and a large and varied display of self-lock adjustable shores, column clamps, grips, etc., etc. A cordial invitation to visit is extended to all interested.

We learn that, in consequence of increase in business, the Western Construction Co., Ltd., builders and contractors, are removing to larger and more commodious premises at Artillery House, Artillery-row, Westminster, S.W.1.

A Report on Wood Paving.

We draw attention to a slight error in the report on "Tungsec" wood paving by Professor S. M. Dixon, published in our last issue. We stated that "In each heading end of each block, a square keyway (1 in. by 1½ in. deep) is cut." This should have read (1 in. × ½ in.). "Tungsec" is not, as stated, marketed by the "Zeta" Wood Flooring Co. (1910), Ltd. The invention was brought out by Mr. W. J. Bennett, of that company, but the owners of the system are The Tungsec Wood Paving Co., of 5, Chancery Lane, W.C, and the exclusive licence for the manufacture and supply of this system is with Messrs. Calders, Ltd., of Plough Road, Rotherhithe, S.E.


PORTLAND STONE
Stone from these Quarries was used in refacing Buckingham Palace & in the construction of Waterloo Station, Victory Arch, etc.
F.J. Barnes, Ltd. Quarry Owners. Office & Works: Portland, Dorset.
London Office: 25, Nine Elms Lane, S.W.8.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 5 6
Second Hard Stocks	3 19 6

Per 1,000, Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 12 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster ...	2 14 3	Do. Bullnose ...	9 15 0
Do., Bullnose...	3 7 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire Brick :—
2½ in. ..... 8 11 0 3 in. 10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ...	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers...	26 10 0
		One Side and two Ends ...	30 10 0
Headers	20 10 0	Two Sides and one End	31 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Splays, and Squints	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS
Delivered London

	s. d.		s. d.
2 in. per yd. super.	1 11	3 in per yd. super	2 9
2½ in. ,, ,,	2 4	4 in. ,, ,,	3 6

	s. d.	
Thames Ballast	9	9 per yd.
Pit Sand	12	0 ,, ,,
Thames Sand	12	6 ,, ,,
Best Washed Sand.....	12	6 ,, ,,
¾ in. Shingle for Ferro-Concrete	12	0 ,, ,,
¾ in.	12	6 ,, ,,
¾ in. Broken Brick.....	11	6 ,, ,,
Pan Breeze	8	0 ,, ,,

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads. Best Portland Cement. British. Standard Specification. Test £2 6 0 to £2 8 0 30s. alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 7 6
Vitrocrete ,, ,, ...	0 7 6
Super Cement (Waterproof)	3 16 0
Roman Cement	8 15 0
Parian Cement.....	5 15 0
Keene's Cement, White	5 15 0
,, ,, Pink.....	5 10 0
Plaster, Coarse, Pink	2 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Strapite, Coarse	3 9 0
,, Finish	3 17 0
Grey Stone Lime.....	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair ..... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.
Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube.....	2 10
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE.— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube.....	4 4½
Do. do. delivered on road wagons at above stations, per ft. cube.....	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft *average*, and ½d. beyond 20 ft.	
HOPTON-WOOD STONE.— F.O.R. Quarries, Wirksworth, Derbyshire,	s. d.
Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides ..... ,,	22 6
Sawn three or four sides ..... ,,	27 6
YORK STONE, BLUE—*Robin Hood Quality*, Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 30 ft. super)..... Per ft. super	5 6
6 in. rubbed two sides, ditto ..... ,,	6 0
3 in. sawn two sides slabs (random sizes) ,,	2 5½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... ,,	1 6½
1½ in. to 2 in. ditto, ditto ..... ,,	1 3½
HARD YORK— Delivered at any Goods Station. London.	
Scappled random blocks ..... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super	5 1½
6 in. rubbed two sides, ditto ..... ,,	6 1½
4 in. sawn two sides slabs (random sizes) ,,	2 1½
3 in. ditto ditto ,,	2 10
2 in. self-faced random flags.....Per yd. super	8 8

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£30 0	3 × 6	£21 0
4 × 9	26 0	3 × 11	25 0
4 × 8	25 0	2 × 11	26 0
4 × 7	23 0	3 × 9	24 0
3 × 8	22 0	2½ × 9	24 0
3 × 7	22 0	3 × 4½	21 0
2½ × 7	21 0	3 × 4	21 0

PLANED BOARDS.

1 × 11	£30 0	1 × 9	£28 0

PLAIN EDGE FLOORING

Inches.	per sq.	Inches.	per sq.
⅝.....	18/-	1½.....	30/-
¾.....	21/-	1¾.....	34/-
1	24/-		

TONGUED AND GROOVED FLOORING

Inches.	per sq.
1	24/-
1½.....	30/-
1¾.....	34/-

MATCHING (BEST).

Inches.	per sq.
⅝.....	16/6
¾.....	19/-
1	24/-

Ins.	BATTENS.	s. d.
1×2.....	per 100 ft.	2 6

SAWN LATHS. s. d.
Per bundle 2 6

1" AND UP THICK.

	£ s. d.	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 16 0	to 0 18 0
Dry American and/or Japanese Figured Oak, ft. cube.....	0 14 0	to 0 15 0
Dry American and/or Japanese Plain Oak, ft. cube	0 10 0	to 0 13 0
Dry sq. edged Honduras Mahogany, ft. cube.....	0 15 0	to 0 18 0
Dry Log cut Honduras Mahogany, ft. cube.....	0 16 0	to 1 1 0
Dry Cuba Mahogany, ft. cube...	1 1 0	to 1 10 0
Dry Teak, ft. cube	0 13 0	to 0 15 0
Dry American Whitewood, ft. cube	0 10 0	to 0 14 0
Best Scotch Glue, per cwt.	4 10 0	to —
Liquid Glue, per cwt.	4 7 0	to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000.

	£ s. d.		£ s. d.
24 by 12	32 18 4	18 by 10	18 12 11
22 by 12	29 17 11	18 by 9	16 9 2
22 by 11	27 14 2	16 by 10	15 12 6
20 by 12	26 5 0	16 by 8	12 3 9
20 by 10	22 10 0		

TILES.

Delivered at London rate stations in full truckloads of not less than 6 tons. Per 1,000. f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district.....	5 7 6
ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
{ Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	£ s. d.
R.S. Joists, cut and fitted	12 10 0
Plain Compound Girders	14 10 0
,, Stanchions	16 10 0
In Roof Work	19 10 0

MILD STEEL ROUNDS.—To London Station, per ton

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
⅜ in.	11 0 0	⅞ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Tubes. Wrought Mild Steel.	Tubes. Genuine Staffs. Iron.	Fittings. ¾ in. and under.	Fittings. Over ¾ in.	Flanges. ¾ in. and under.	Flanges. Over ¾ in.
	%	%	%	%	%	%
Gas	65	52½	45	47½	55	57½
Water	61½	48½	40	42½	50	52½
Steam	57½	45	35	37½	45	47½
Galv. gas.....	52½	40	35	37½	45	47½
Galv. water	47½	35	30	32½	40	42½
Galv. steam	42½	30	25	27½	35	37½

C.I.—HALF-ROUND GUTTERS—London Prices ex Works

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	10d.	7½d.	2½d.
3½ in.	10½d.	8½d.	2½d.
4 in.	10½d.	9½d.	2½d.
4½ in.	11½d.	10½d.	2½d.
5 in.	1/1½	11½d.	3d.

O.G. GUTTERS.

3 in.	1/0	10½d.	2½d.
3½ in.	1/0½	10½d.	2½d.
4 in.	1/1½	10½d.	2½d.
4½ in.	1/2½	1/0½	2½d.
5 in.	1/5	1/2½	3½d.

RAIN-WATER PIPES, &c.

Per yd. in 6 ft. Pipe.		Bends, stock angles.	Branches, stock angles.
2 in. plain	1/2½	9½d.	1/2
2½ in. ,, ...	1/3	10½d.	1/4½
3 in. ,, ...	1/6½	1/1½	1/8½
3½ in. ,, ...	1/11	1/4½	1/11½
4 in. ,, ...	2/6	1/7½	2/4½

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts. plain	2 5	1 9	2 1
2½ in. ,,	2 9½	1 10½	2 7
3 in. ,,	3 6	2 1	3 1
3½ in. ,,	3 3	2 7	3 7
4 in. ,,	3 8	2 11	4 1½

L.C.C. COATED DRAIN PIPES—London Prices ex Works

	Pipe, stock angles.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	3 6	4 6	7 0
4 in. ,, ,,	4 8	5 5	9 3
5 in. ,, ,,	6 3	9 6	15 0
6 in. ,, ,,	7 3	11 6	19 0

Gasken for jointing, 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars.....	11 0 0	to	12 0 0
Staffordshire Crown Bars— Good merchant quality	11 10 0	to	12 10 0
Staffordshire Marked Bars.....	14 0 0	...	15 0 0
Mild Steel Bars	10 0 0	...	11 0 0
Steel Bars, Ferro-Concrete quality, basis price	10 0 0	...	11 0 0
Hoop iron, basis price	11 10 0	...	12 10 0
,, Galvanised.....	27 0 0	...	28 0 0
Soft Steel Sheets, Black— Ordinary sizes, to 20 g....	13 0 0	...	14 0 0
,, ,, ,, 24 g....	14 0 0	...	15 0 0
,, ,, ,, 26 g....	16 0 0	...	17 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	15 0 0	...	16 0 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	16 0 0	...	17 0 0
Ordinary sizes, 6 ft. by to 3 ft. to 26 g....	18 0 0	...	20 0 0

No. 1 quality £4 per ton extra.

Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	16 10 0	...	17 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	17 0 0	...	18 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	20 0 0	...	21 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	21 0 0	...	22 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 0 0	...	25 0 0
Best Soft Steel Sheets, 26 g.	24 10 0	...	25 10 0
Cut Nails, 3 in. to 6 in.....	18 0 0		

(Under 3 in. usual trade extras.)

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	31 15 0
Pipe in coils	32 5 0
Soil pipe	35 5 0
Compo pipe	36 5 0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 2s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt extra. Cut to sizes, 5s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	21 10 0

COPPER.

	s. d.
Seamless Copper tubes (basis)..... per lb.	1 1½
Strong sheet ..... ,,	1 0
Thin..... ,,	1 1
Copper nails ..... ,,	2 3
Copper wire ..... ,,	2 4

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

¾ in.	1 in.
39/6	60/- 116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
7/6	11/-	17/-	20/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps ...	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps ...	35/-	45/-	66/-	126/-	,,

TIN.—English Ingots, 2/5 per lb. SOLDER.—Plumber's 1/1, Tinmen's 1/3, Blowpipe 1/4 per lb.

PAINTS, &c.

Raw Linseed Oil, in pipes	per gallon	0	4 1
,, ,, ,, in barrels ...	,,	0	4 3
,, ,, ,, in drums ...	,,	0	4 5
Boiled ,, ,, in barrels ...	,,	0	4 5
,, ,, ,, in drums ...	,,	0	4 8
Turpentine in barrels	,,	0	3 11
,, in drums (10 galls)	,,	0	4 1
Genuine Ground English White Lead, per ton		55	0 0

(In not less than 5-cwt. casks.)
Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

PAINTS, &c. (*contd.*)

	£	s.	d.
Genuine White Lead Paint. "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganawyte," "Polacco," "J." Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots .. per ton delivered	74	10	0
Red Lead, Dry (packages extra) .. per ton	40	0	0
Best Linseed Oil Putty ..... per cwt.	0	15	6
Filleol ..... "	0	15	8
Size. XD quality ..... ftn.	0	2	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.	
15 oz. fourths .. 2½d.	22 oz. fourths	6½d.	
15 „ thirds .. 3½d.	22 „ thirds	9d.	
21 „ fourths .. 3½d.	Obscured Sheet, 15 oz.	3½d.	
21 „ thirds .. 4½d.	„ „ 21 oz.	4½d.	
26 „ fourths .. 4½d.	Fluted, 15oz. 6½d., 21oz.	9d.	
26 „ thirds .. 6½d.	En'lled, 15oz. 4½d., 21oz.	6d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES. Per ft.

¼ Rolled plate	4½d.
⅜ Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic Stippolyte, and small and large Flemish White ..	5½d.
Ditto, tinted	5½d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	16	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	0
Hard Drying Oak	ditto	0	16	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	0
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	6
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	7	6
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

NEW BUILDINGS IN SCOTLAND

Aberdeen.—Reconstruction.—Schemes for the reconstruction and extension of Aberdeen Harbour, involving an expenditure of £250,000, have been drawn up by Mr. S. Gordon Nicol, the harbour engineer.

Calder.—Houses.—The Calder District Committee of Midlothian County Council has decided to erect 64 houses for the working classes in various localities in the district.

Dundee.—Buildings.—Plans and sections of the following proposed new buildings, etc., have been lodged at the Office of the City Engineer:—Commercial-street—alterations for the Vestry of the Cathedral Church of St. Paul's; Hilltown—lavatories for the Scottish Cinema and Variety Theatres, Ltd., Messrs. Maclaren, Soutar & Salmond, architects, 15, South Tay-street; King-street, Broughty Ferry—alterations for Messrs. D. & J. Thomson, Mr. G. Jamieson, architect, 20, Whitehall-street; Kingsway—dwelling-houses for Mr. D. K. Symington, Mr. W. M. Patrick, architect, 26, Yeaman-shore.

Dunoon.—Church.—The Dean of Guild Court has passed plans for the erection of a temporary church for the congregation of St. Mun's, Dunoon, which will be built in the grounds of Cragroy, East Bay, Dunoon.

Glasgow.—Houses.—The Corporation of Glasgow are inviting tenders for the erection of 288 houses at M'Nair-street, Shettleston.

Gourock.—Road.—Gourock Town Council have decided to apply to the Ministry of Transport for approval of two schemes of road improvements within the burgh.

Kirkcaldy. — Houses. — Tenders for 12 three-roomed houses of the flatted type and eight semi-detached cottages at Windygates are now being invited by the Kirkcaldy District Committee. Mr. G. B. Deas, of Central-chambers, Kirkcaldy, is the architect.

NEW CINEMAS

Birmingham.—The contract for the new building for the trustees of the Wesleyan Missions Hall, Nechells Park-road, has been let to Messrs. W. J. Whittall and Son, Lancaster-street, Birmingham, who tendered at £13,400. The accommodation includes a large hall seating 900, which it is proposed to equip to give occasional cinematograph performances. The architect is Mr. A. L. Snow, A.R.I.B.A., 110, Colmore-row, Birmingham.

Corsham.—The erection of a cinema is under consideration by Mr. H. Andrews. The architect is Mr. Chas. H. Goater, of Trowbridge.

Douglas, I. of M.—The new cinema proposed to be built in Douglas is for the Palace and Derby Castle Company, who will demolish one of their two existing houses and erect a new cinema to accommodate 1,880.

Falkirk.—Plans are being prepared for the reconstruction of the Grand Theatre, at an estimated cost of about £10,000. The scheme provides for a new building of double the present accommodation. It is proposed to install "talkies." The architects are Messrs. Gardner & Glen, of 164, Bath-street, Glasgow.

London.—We learn that the "Carlton," to be erected at Essex-road, River-street, and Astley's-road, Islington, details of which we gave in our issues of August 9 and 23, is but one of a chain of super cinemas proposed for the London suburbs by Messrs. J. H. Rose and Albert Clavering, whose registered offices are at 199, Piccadilly. The architect for the chain is Mr. George Coles, F.R.I.B.A., 40, Craven-street, W.C.2.

Newark.—Mr. E. Bryan Dean, Market Chambers, Mansfield, is the architect for the erection of a new cinema at Edwinstowe, near Newark, for Mr. J. Pollard, of Mansfield.

Pitsea, Essex.—The new cinema is to be built here by Messrs. J. S. Flaxman & Sons, Ltd., 114, Southchurch-road, Southend-on-Sea.

Plymouth.—A London syndicate propose to purchase the Central Hotel, Lockyer-street, and Dr. Hamilton's house adjoining, which are to be demolished preparatory to the erection of a super cinema and theatre. The scheme is estimated to cost £80,000. The architect is Mr. H. J. Hammick, of 63, Old Town-street, Plymouth.

Redcar.—Plans by Messrs. William and T. R. Milburn, F.R.I.B.A., 17, Fawcett-street, Sunderland, are in hand for the reconstruction of the Central Cinema, Redcar, for the proprietor, Mr. T. Thompson, the "Hippodrome," Middlesbrough.

Shettleston.—Work has now begun in the erection of a new cinema. Plans were prepared by Messrs. John McKissack & Son, of 68, West Regent-street, Glasgow. They provide for a building to seat 1,700 persons.

Smethwick.—Plans by Mr. Henry E. Farmer, F.R.I.B.A., of 57, Colmore-row, Birmingham, have been passed by the Smethwick C.B., providing for a 2,250-capacity cinema, the "Commodore," at the junction of Cape-hill and Windmill-lane.

Spennymoor.—Mr. Matt Robson, architect, Fleet-street, Bishop Auckland, has prepared the plans and drawings for the erection of the new cinema, the "Tivoli," for the Tivoli (Spennymoor), Ltd.

Thornton, Lancs.—A billiards hall in Fleetwood-road, Thornton, is to be converted into a cinema. The building is to be completely reconstructed, and accommodation will be provided for 400. The architects are Messrs. Mercer & Duckworth, A.R.I.B.A., of New Dock-chambers, Dock-street, Fleetwood.

Wimbledon.—It is understood that Wimbledon Corporation has passed plans submitted by Mr. W. J. King, of 5, St. James-street, W.C.1, for alterations at the Apollo (now Prince's), Merton-road, Wimbledon.

BUILDING TRADE WAGES IN SCOTLAND*

The following are the present rate of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterer..	Slaters.	Plumbers.	Painters.	Labourers—Masons'‡ Bricklayers'† Plasterers'†
Aberdeen	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Airdrie	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Alexandria	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Bathgate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2 to 1/3
Blairgowrie	1/7	1/7	1/7	1/7½	1/5	1/7	1/4	10d. to 1/-
Bo'ness	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Dumfries	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/2
Dundee	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3 †1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	‡1/2½ †1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Falkirk	1/7½	1/7½	1/7	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2
Galashiels	1/6½	1/7	1/6½	1/7	1/6½	1/6½	1/7	1/2
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Hamilton	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2
Hawick	1/7	1/7	1/7	1/7–1/7½	1/7	1/7	1/7	1/2½
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7	1/2½
Inverness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/- to 1/2
Kilmarnock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Kirkwall	1/5	1/5	1/4	1/5	1/5	1/4	1/4	1/-
Lanark	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Leith	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/3½ †1/2½
Motherwell	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Perth	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½
Stirling	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/7½	1/2½
Stranraer								
(Eastern District)	1/7½	1/9	1/7½	1/8½	1/7½	1/7½	1/8	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/8	‡1/2½ †1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 575.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	0
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	38	0
Add if in underpinning in short lengths	" "	7	0
Add if in floors 6 in. thick	" "	3	3
Add if in beams	" "	3	9
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	32	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	10	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	10
Axed in stocks	" "	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	1	0
Setting ordinary register grates and stoves	each	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	3
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	2

MASON.

		s.	d.
York stone templates fixed	per foot cube	13	0
York stone sills fixed	" "	22	0
Bath stone and all labour fixed	" "	10	6
Beer stone and all labour fixed	" "	15	0
Portland stone fixed	" "	20	0

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	0
Do. joists	" "	5	6
Do. roofs, floors and partitions	" "	6	0
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	35/6	40/-	45/-	72/-
Flat centering for concrete floor, including struts or hangers	"				50 0
Do. to beams	per ft. sup.				0 11
Centre for arches	"				1 6
Gutter boards and bearers	"				1 0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.	—	44/6	53/-	60/6
Do. tongued and grooved	"	—	49/-	57/6	65/-
Do. matchings	"	45/-	51/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail : average, 3 in. × 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	16	3
Plain compound girders	"	19	0
Do. stanchions	"	21	9
In roofwork	"	27	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/6	1/9	2/-	2/6
Ogee Do. Do.	"	1/9	2/-	2/6	3/3
Rain-water pipes with ears	"	1/9	2/7	—	—
Extra for shoes and bends	each	4/4	5/11	—	—
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	47	0
Do. Do. in flats	"	46	0
Extra labour and solder in coated cesspools	each	6	9
Welf joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/9	2/-	3/4	4/-	—
Do. service	"	1/8	2/2	2/7	3/10	—	—
Do. soil	"	—	—	—	—	—	6/9
Bends in lead pipe	each	—	—	—	—	3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	—
Read lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"	—	—	—	14/7	19/6	—
Bib cocks and joints	"	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints	"	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	9
Do. Do. Keen's	" "	4	0
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic paving	per yard sup.	5	6

GLAZIER.

		s.	d.
21-oz. sheet plain	per foot sup.	0	8½
26-oz. Do.	" "	1	0
Obscured sheet	" "	1	1
¼-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10½
½-in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works, and H.M. War Office*.

Aberdeen.—Carpenter work of an engine house at Rocks of Balmedie Quarry, for the D.C. of the C.C. District Road Surveyor:—
*W. Durno, Skene £148

Acton.—Y.M.C.A. Technical Institute, Acton-lane, W. Mr. C. H. James, F.R.I.B.A., architect:—

Ferris & Co.	£19,448
Bollom & Co.	18,717
—, Burgess	18,550
G. Parker & Co.	18,495
Wolland & Co., Ltd.	18,455
Hewitt & Co., Ltd.	18,250
Wallis & Co., Ltd.	17,948
Limpus, Sons, Ltd.	17,629
*Wm. Shurmur & Sons, Ltd.	16,920

Ballynure.—School, for the Larne Regional E.C.:—
*H. Laverty & Sons (Belfast), Ltd.... £3,600

Barking Town.—Dressing-room accommodation, etc., under the grand-stand in the Vicarage Field, for the U.D.C. Deputy Engineer and Surveyor:—

J. Clement, Barking	£835
*Deputy Engineer and Surveyor	832

Barking Town.—Sub-station near Gale-street Station, for the U.D.C.:—
‡C. J. Wills & Sons, Ltd.

Belfast.—Store premises in Custom House-square, for Messrs. Henderson & Sons. Messrs. Munce & Kennedy, architects, 11, Wellington-place:—
*Thornbury Bros., Ltd., Belfast.

Birmingham.—Alterations and extensions at Blackwell Camp School, for the E.C.:—
*Cowiesons, Ltd. £625

Birmingham.—New building for the trustees of the Wesleyan Missions Hall, Nechells Park-road. The accommodation includes a large hall with seating for about 900. Mr. A. L. Snow, A.R.I.B.A., architect, 110, Colmore-row. Quantities by Mr. L. Voisey, 10a, Temple-row:—
*W. J. Whittall & Son, Lancaster-street, Birmingham £13,400
Steelwork—
*Braithwaites, Ltd.
Floors—
*" Bison " Pre Cast.
Windows—
*Gibbons, St. Johns Works, Wolverhampton.
Heating—
*Hopes Heating, Ltd.

Birmingham.—School clinic in Yardley-road, Bordesley Green, for the E.C.:—
*F. H. Smith, Birmingham £4,494

Bolton.—Improvements to premises in Wood-street. Messrs. Ormrod, Pomeroy & Foy, F.R.I.B.A., architects, 21, Acresfield:—
*J. Cocker, Ltd., Manchester.

Boston.—40 houses for the R.D.C. Mr. A. Barton, architect and surveyor, Market-place:—
10, *A.2 type houses, Skirbeck*—*W. H. Vamplow, Wormgate, Boston.
3, *Bungalow type, Skirbeck*; 6, *A.3 type, Swineshead*—*J. W. Greetham, Sea View-road, Skegness.
3, *Bungalow type, Bicker*; 4, *A.2 type, Bicker*—*Z. Sandall, Stump Cross, Swineshead, near Boston.
2, *B.3 type, Brotherloft*—*Pickett Bros., Gipsy Bridge, near Boston.
4, *B.3 type, Leverton*—*A. H. & F. Leafe, 70, Sydney-street, Boston.
8, *B.3 type, Leverton*—*F. Evison, Sibsey, near Boston.

Bradford.—Girders for Harrogate-road canal bridge, for the T.C. Mr. F. Marsden, City Engineer and Surveyor:—
*Orr, Watt & Co., Ltd., Steel Structural Engineers, Lanarkshire Bridge-works, Motherwell, near Glasgow.

Bradford.—44 class "A" houses on the site of the Bradford White Abbey Improvement scheme, for the Corporation:—
*R. J. Patchett, Queensbury.

Bristol.—Erection of 120 houses: Speedwell housing site, 56; St. Anne's housing site, 48; Vale-lane, Bedminster housing site, 16; for the City Council. Mr. Lessel S. McKenzie, City Engineer and Surveyor, 51, Prince-street:—
St. Anne's (48 houses)—
*A. W. Norris, Eastville, Bristol £18,638
Speedwell (56 houses)—
*Tudhall & Gregory, Ashton Gate, Bristol 21,067
Vale-lane (16 houses)—
*Gibbs & Davies, 59, Spring-leaze, Knowle-park, Bristol 5,760

Carmarthen.—Concrete dam, pumping plant and containing building ansd mass concrete bywash, Corporation Waterworks at Cwmtawel, for the T.C. Mr. George L. Ovens, Borough Engineer and Surveyor:—
‡T. Evans, Neath £1,963 14 8

Cardiff.—Secondary school on a site at the corner of North and New Zealand-roads, Gabalfa, for the E.C. Mr. G. H. Whitaker, City Engineer and Education Architect:—

W. A. Jones, Llantwit Major	£67,167 0 0
James & Woodworth, Cardiff	59,823 0 0
E. J. Smith & Co., Cardiff	58,002 0 0
E. R. & P. L. Jeans, Cardiff	49,000 0 0
J. E. Evans & Co., Cardiff	48,433 0 0
Knox & Wells, Cardiff	48,000 0 0
D. Davies & Sons, Cardiff	47,840 0 0
E. R. Evans & Bros., Ltd., Cardiff	47,200 0 0
F. J. Thomas & Sons, Ltd., Cardiff	45,574 16 5
Bradford & Davies, Cardiff	45,039 10 7
Watts & Gale, Whitchurch	44,900 0 0
E. A. Bond & Co., Cardiff	44,089 7 7
S. C. Taverner, Newport, Mon.	43,960 3 11
*W. S. Eglen, Pencisely-road, Cardiff	42,136 18 1

Chelmsford.—Addition to the fire station in Market-road, for the T.C. Mr. E. J. Miles, Borough Engineer:—
*Cooper & Parker, 84, Baddow-road, Chelmsford £545

Chester.—Alterations of the hot water heating apparatus at Love-street Council school (girls' department), for the T.C. City Surveyor:—
*F. J. Proud & Sons.

Chester.—Fencing of the forecourts and paths on the Heath-lane and Handbridge estates, for the T.C.:—
*J. W. Flather, Ellesmere Port.

Chester.—96 houses on the Eaton-road estate, for the T.C.:—
*T. Boddy, Chester £41,700
(Subject to M.H. approval.)

Chesterfield.—Hall for the Girl Guides' Divisional Headquarters, at the junction of Cross-street and St. Margaret's-drive:—
*C. Vallance & Son, Mansfield £3,500

Chesterfield.—Sunday schools, for the Holmewood Trustees. Messrs. Jackson & Fryer, architects, 6, Stephenson-place:—
*H. James, junior, Station-street, Mansfield £3,000

Clydach.—Additions and alterations to the Council school, for the Breconshire E.C. Mr. H. C. W. Strickland, A.R.I.B.A., County Architect, Brecon:—

B. W. Davies, Blaina	£4,706 10 0
Williams Bros., Pontardawe	3,355 7 1
Evan James, Ystradmynach	3,162 8 9
T. Dickinson, Tredegar	2,996 8 10
J. G. Thomas & Sons, Abergavenny	2,994 11 0
White Bros., Brynmawr	2,850 3 6
Foster & Hill, Abergavenny	2,814 7 2
*Wm. Arthur, Abersychan, Mon.	2,507 10 3

Colbren.—Boiler houses at the Colbren and Cynlais Council schools, for the Breconshire E.C. Mr. H. C. W. Strickland, A.R.I.B.A., County Architect, Brecon:—

Evan Thomas & Sons, Neath	£230 0 0
*Williams Bros., Pontardawe	193 11 9

Cork.—44 houses at Douglas-road, for the Irish Sailors' and Soldiers' Land Trust. Mr. W. J. Brown, F.R.I.B.A., architect, 50-51, Upper Mount-street, Dublin:—
*Housing Corporation of Great Britain, Ltd., 20, St. James-square, London, S.W.1 ..... £24,820 16 11

Coventry.—Factory premises for the National Cork Industries, Ltd. Mr. C. W. Glover, architect, Abbey House, Victoria-street, London, S.W.1:—
*W. H. Jones & Son, Coventry.
Steelwork—*Lambhill Ironworks, Ltd., Glasgow.
Glazing—*Mellowes & Co., Ltd., Sheffield.

Croydon.—Building extensions, for the C.B.:—

J. Smith & Sons	25,088
Grace & Marsh, Ltd	24,575
E. H. Smith	23,900
The Foundation Co., Ltd.	22,495
H. Windsor & Co., Ltd.	22,097
Truett & Steel	21,524
R. Mansell	20,967
*Peter Lind & Co., Ltd., 2, Central-buildings, S.W.1	20,900

(All of London.)

Croydon.—Cooling tower, for the C.B.:—
*A. E. Farr £18,753
(In lieu of tender withdrawn.)

Croydon.—Erection of the Lodge-road school, for the C.B.:—

F. F. Foster & Co., London	£33,485
S. E. Moss & Sons, Chelmsford	33,000
J. Elliman & Son, Ltd., Beckenham	32,932
O. Diplock & Son, Enfield	32,790
Wm. Akers & Co., Ltd., London	32,696
H. Bacon & Son, Ltd., Coulsdon	32,688
R. J. Rowley, Ltd., Tottenham	32,411
E. J. Saunders, Croydon	32,391
Norman Smith & Son, Maidstone	32,318
J. Smith & Sons (Norwood), Ltd., London	32,275
Hill & Gurr, Bromley	31,976
Grace & Marsh, Ltd., Waddon	31,867
Truett & Steel, Ltd., Thornton Heath	31,755
W. Eaves & Co., Ltd., Blackpool	31,651
E. H. Smith, Croydon	31,535
Frost & Sheehan, London	31,517
Wm. Moss & Sons, London	31,487
C. H. Kenworthy, Herne Bay	31,281
R. Mansell, Croydon	30,797
Galbraith Bros., Ltd., London	30,750
Perry's (Ealing), Ltd., Ealing	30,736
G. H. Denne, Ltd., London	30,470
J. Crewdson, Horley	29,793
Wm. Bagg & Sons, Ltd., Croydon	29,619
E. A. Russell, London	29,300
Hammond & Barr, Ltd., London	28,885
F. R. Hipperson, London	28,877
*J. G. Gray, Broad-street, Coventry	28,620

Croydon.—Extension to the Education Office buildings, for the C.B.:—

S. E. Moss & Sons, Chelmsford	£5,137 18
A. Logan, London	4,555 0
Hickman, Ltd., London	3,963 0
J. Smith & Sons (Norwood), Ltd., Norwood	3,920 0
W. O. Everitts, Ltd., Croydon	3,907 0
F. R. Hipperson, London	3,866 0
E. J. Saunders, Croydon	3,826 0
H. Bacon & Sons, Coulsdon	3,795 0
Grace & Marsh, Waddon	3,790 0
A. E. Russell, Walthamstow	3,773 0
Hammond & Barr, Ltd., Chelsea	3,694 0
Hill & Gurr, Bromley	3,687 0
F. F. Foster & Co., Norwood	3,600 0
J. Crewdson, Horley	3,600 0
Truett & Steel, Ltd., Thornton Heath	3,574 0
Burnand & Pickett, Ltd., Wallington	3,549 0
Norman Smith & Son, Maidstone	3,511 14
*R. Mansell, Grant-road, Croydon	3,497 0

Croydon.—Sub-station at Grant-place, for the C.B.:—

D. Waller	£382
E. H. Smith	377
Grace & Marsh, Ltd.	368
E. J. Saunders	365
G. Poulton & Son	359
Truett & Steel, Ltd.	350
*R. Mansell, 17/23, Grant-road	347

(All of London.)

Croydon.—Sub-station at Hillside-road, for the C.B.:—

D. Waller	£314
E. H. Smith	295
Grace & Marsh, Ltd.	285
E. J. Saunders	283
Truett & Steel, Ltd.	271
R. Mansell	247
*G. Poulton & Son, 11, Westbrook-road	232

(All of London.)

Exeter.—Erection of depot, for the G.W.R., at St. David's Station. Engineer, Paddington Station :—

*R. Wilkins & Sons, Ltd., Torquay.

Fakenham.—Enlargements and alterations to the Secondary school, for the Norfolk E.C. Mr. C. W. Bullen, architect, Shire Hall, Norwich. Quantities by the architect :—

*Fisher & Sons, Fakenham £3,195

Glanton.—Erection of a memorial hall at Glanton. Mr. J. W. Douglas, architect and surveyor, 27, Bondgate Without, Alnwick :—

Mason—*M. Johnson, Rose Lea, Glanton.
Joiner—*J. Cowans, Dye Mills, Wooler.
Slater and Plasterer—*J. Purdie, Alnwick.
Plumber—*W. Douglas, Glanton.
Painter and Glazier—*T. Diamond, Glanton.

Haslingden.—Additions to Sunnybank Mill, Helmshire, for Messrs. Porritts & Spencer, Ltd., woollens, 8, Belgrave-place, Bury. Messrs. Alfred Hopkinson & Son, L.R.I.B.A., architects, 30, Compton-street, Bury :—

*Phineas Drake & Sons, Haslingden.

Hayes.—New Wesleyan Methodist Church in Station-road. Messrs. Gilder & Kitchen, FF.R.I.B.A., architects, of Hull :—

*Somerford & Sons, Clapham, S.W.

Hornsey.—Nurses' home, Park-road, Hornsey, N.8, for the Hornsey Central Hospital. Mr. James M. Lethbridge, F.R.I.B.A., architect. Quantities by Messrs. T. M. Deacon, Son & Addiscott, surveyors :—

	Home	*Boundary wall, railings, etc.*
Stevens & Sons	£13,592	£88
C. R. Price	12,987	95
Compton Bros.	12,965	105
F. Cottrell, Ltd.	12,825	94
J. C. Knight & Son	12,546	87
Dove Bros.	12,425	125
E. A. Roome & Co.	12,421	90
A. Fairhead & Sons	12,345	92
C. J. Newby	12,276	97
L. H. & R. Roberts	12,219	97
Mattock & Parsons	12,133	112
G. Godson & Sons	12,016	127
C. Miskin & Sons	11,987	88
*A. Monk	10,948	88

Huddersfield.—Detached house on Yew Tree-road, Birchencliffe. Mr. Joe Ainley, architect, Albert-chambers, 55, New-street :—

Masons—
*Bailey & Stott, Golcar £309
Joiner—
*F. Saville, Milnsbridge 148
Plumbers—
*H. Hunter & Son, Paddock 110

Keighley.—Electricity sub-station on land at Marley, for the Corporation. Mr. Harry Weber, Borough Electrical Engineer :—

*Hird Brothers & Co., Ltd., Keighley.

Larne.—Additions to Larne and Inver school, for the Regional E.C. :—

*H. Girvan & Sons, Larne £8,000

Leicester.—4,000 yards of wrought iron fencing, at Braunston Park, for the City Council. City Surveyor :—

*Wm. Gratrix & Sons, Walkden, near Manchester £3,154 5

Leicester.—Chapel registrars' and sextons' lodges, etc., at the Saffron-hill cemetery, Aylestone-lane, for the City Council. Mr. A. T. Gooseman, City Surveyor :—

*G. Calverley & Son, Leicester £17,720

Linthwaite.—Raising shed two stories at Lowestwood Mills, for Messrs. W. E. Cottor & Sons, Ltd. Messrs. J. Kirk & Sons, architects, Market-place, Huddersfield :—

Masons—*Brook, Holroyd & Eagland, Slaithwaite.
Joiners—*J. Varley & Son, Slaithwaite.
Plasterer—*W. E. Jowitt, Huddersfield.
Plumber—*T. Firth, Marsden.
Slaters—*Pickles Bros., Huddersfield.
Concretors—*J. Cooke & Son, Huddersfield.
Iron and steelwork—*W. H. Heywood, Huddersfield.

Littleborough.—26 houses on the Shore estate, for the District Council. Mr. A. Travis, architect, Union Bank-chambers, Rochdale :—

*R. & T. Howarth, Rochdale.

Liverpool.—Cleaning and painting at the Fazakerley Annexe Hospital, for the T.C. Land Steward and Surveyor :—

*Dent & Graham, 17, St. Mary's-lane, Walton £346 15

Liverpool.—Conveniences at Newsham-park, for the T.C. :—

*W. Spencer, Bull-bridge, Aintree, Liverpool £494

Liverpool.—Electric sub-station and tramway shelter at the junction of Aigburth-road and Livingston-drive, for T.C. :—

*J. Williams (Liverpool), Ltd., 70, Collingwood-street, Liverpool £2,038

Liverpool.—Electric substation at the junction of Bookers-avenue and Greenhill-road, for the T.C. :—

*Rimmer Bros., Dalton-street, Liverpool £862

Liverpool.—Electric sub-station in Calderstones-road, for the T.C. :—

*Brown & Backhouse, 52-60, Chatham-street, Liverpool £852

Liverpool.—Electric sub-station in Jubilee-drive, for the T.C. :—

*O. & G. L. Deseer, Ltd., 118, Everton-road, Liverpool £747

Liverpool.—Extension of the electric supply and lighting department premises, Highfield-street, for the T.C. :—

*Rimmer Bros., Dalton Street, Liverpool £20,493

Liverpool.—Exterior painting and general repairs and painting portions of the interior of St. George's Hall, also cleaning and painting the Steble Fountain, for the T.C. Land Steward and Surveyor :—

*A. R. Jones, 38-40, South John-street, Liverpool £376

Liverpool.—Glazing work at elementary schools, for the T.C. Mr. A. D. Jenkins, Land Steward and Surveyor :—

North District—*J. Lewis, 215, Walton-road, Liverpool.
South District—*J. G. Nicholls, Ltd., Seel-street, Liverpool.

Liverpool.—New buildings with frontages to Williamson-street and Church-street, for branch bank for Messrs. Lloyds Bank, Ltd., Cornhill, E.C.2. Mr. G. J. Rowse, F.R.I.B.A., architect, 305, India-buildings, Water-street :—

*J. Henshaw & Sons, Liverpool.

Liverpool.—Painting and repairs at the Police Recruit and Stores Department, Everton-terrace, for the T.C. Land Steward and Surveyor :—

*C. & G. L. Deseer, Ltd., 118, Everton-road, Liverpool £209

Liverpool.—Painting at the Fazakerley fire station, for the T.C. Land Steward and Surveyor :—

*E. Jones, Ltd., 32, Bedford-street, Liverpool £454

Liverpool.—Tramway shelter, electric sub-station and public conveniences at the Wavertree Clock Tower, Church-road, Wavertree, for the T.C. :—

*Rimmer Bros., Dalton-street, Liverpool £4,201

Liverpool.—Tramway shelter in Smithdown-road, at the Cemetery gates, for the T.C. :—

*J. Williams (Liverpool), Ltd., 70, Collingwood-street, Liverpool £464

Liverpool.—Two houses on the Walton-Clubmoor estate, for the T.C. Acting Director of Housing :—

*R. Myles, Ltd., 30-32, Bridport-street, Liverpool £910

London.—Construction of enclosure to storage cisterns on the Bloomfield estate, for the Lambeth B.C. :—

Gregson & Co., Ltd. ...	£1,583	0	£1,657	0
H. D. Harding Ltd.....	1,432	0	1,568	0
W. A. King & Sons (Brixton), Ltd.	1,327	0	1,477	0
D. M. Peattie & Co. ...	1,293	12	1,431	16
J. Appleby & Sons, Ltd.	1,059	9	1,217	9
Hammond & Barr, Ltd.	965	0	1,070	0
J. Crewdson, Horley ...	853	18	1,013	19
Streamers, Ltd.	808	10	1,025	0
Merton Abbey Joinery Works	806	0	976	0
*W. Pitt, 1, The Drive, Woodcote Green, Wallington *J. B. Boorman, Westcroft House, Butter Hill, Carshalton	686	0	*950	0

(Remainder of London.)

¶**London.**—The following contracts have been entered into by H.M.O.W. during the week ended the 21st instant :—

Stratford, Forest Gate and Manor Park district—maintenance: A. Webb, Langthorne Works, Romford-road, Stratford.
Newbury district—maintenance: T. Plumb, Greenham-road, Newbury.
Salisbury district—maintenance: Wort & Way, Castle-street, Salisbury.
York district—maintenance: J. W. Maw & Son, Ltd., 18, Waverley-street, York.
Beckenham district—maintenance: Andrews & Andrews, Crescent Works, Beckenham
Letchworth, Baldock and Hitchin district—maintenance: F. Newton, Tilehouse-street, Hitchin.
Stourbridge district—maintenance: W. T. Harmon, Stourbridge.
Kidderminster district—maintenance: W. J. Brown, New-road, Kidderminster.
Grimsby and Cleethorpes district—maintenance: H. & C. Thompson Bros., Ltd., Hampton-avenue, Grimsby.
Kingston-on-Thames district—maintenance: Limpus & Son, 7, Kingston-hill, Kingston-on-Thames.
Dorchester post office and telephone exchange—extension: C. E. Slade, Acland-road works, Dorchester.
Broadmoor Criminal Lunatic Asylum—Reconditioning mortuary, etc.: Spear and King, Albert Joinery-works, Crowthorne.
Liverpool district—maintenance: J. W. Jones & Sons, Ltd., Allerton-road, Liverpool.
Colwyn Bay and Conway district—maintenance: W. Dobinson & Son, Vaughan-street, Llanduduo.
Ministry of Labour Training Centre, Watford—alterations: C. W. Dumpleton, 54, Victoria-street, St. Albans.
Weybridge and Addlestone district—maintenance: J. Poulton, 51, High-street, Addlestone.
Worthing district—maintenance: H. C. Waller, 2a, Ashdown-road, Worthing.
Chichester district—maintenance: The West Sussex General Builders, The Hornet, Chichester.
Nuneaton district—maintenance: T. A. Ellis, Orchard-street, Nuneaton.
Ashford district—maintenance: J. Masters & Sons, 59, Godinton-road, Ashford.
Petersfield district—maintenance: E. Canterbury & Co., Penns-road, Petersfield.
Slough district—maintenance: H. D. Bowyer, 29, Mackenzie-street, Slough.
Surbiton district—maintenance: T. Johnson & Sons, 102, Brighton-road, Surbiton.
Sheerness district—maintenance: Allison & Son, 8, St. George's-avenue, Sheerness.
Sutton district—maintenance: R. E. Archer & Co., Ltd., West-street, Sutton.
Newport (Isle of Wight) district—maintenance: H. and F. Damp, 61, Pyle-street, Newport, Isle of Wight.
High Wycombe district—maintenance: A. C. Dean, West Wycombe-road, High Wycombe.
Redhill and Reigate district—maintenance: Newton Green & Son, London-road, Redhill.
Princes Risborough district—maintenance: J. V. Chadwick, The Mount, Parkfield, Princes Risborough.
Redditch district—maintenance: J. & A. Millward, Ltd., Alcester-road, Redditch.
Luton district—maintenance: J. Saunders & Son, Duke-street, Luton.
Clacton-on-Sea district—maintenance: Evans & Nunn, Ltd., 44, London-road, Clacton-on-Sea.
Woking district—maintenance: R. Pain & Sons, Ltd., 16, High-street, Woking.
Newcastle "East" telephone exchange—erection: Bewley & Scott, Ltd., Dunston-on-Tyne.
Buckingham Palace—alterations, etc., to ambassadors entrance, etc.: John Mowlem & Co., Ltd., 41, Ebury Bridge-road, S.W.
Ryde district—maintenance: E. Chandler, 6, Angle sea-street, Ryde.
New Cross, Deptford and Brockley District—maintenance: H. Groves & Son, Stockwell-street, Greenwich.
Burton-on-Trent district — maintenance: H. Edwards, Ltd., 55, Blackpool-street, Burton-on-Trent.
Northampton district—maintenance: Chowns, Ltd., 63, Edinburgh-road, Northampton.
Bedford district—maintenance: W. Laughton, 110 Midland-road, Bedford
Lowestoft district—maintenance: D. Leighton & Son, Ltd., Belvedere-road, Lowestoft.

London.—Premises in Sloane-street, S.W.1, for the Westminster Bank, Ltd. Messrs. Wigglesworth and Marshall Mackenzie, FF.R.I.B.A., architects, 7, John-street, W.C.1 :—

Contractors—*Hammond & Barr, Ltd., Sloane-avenue, Chelsea, S.W.
Steelwork—*Bridgewater Construction Co.
Stonework—*Damer Bros.
Asphalt—*Ragusa Asphalte Co.
Heating—*Berry & Co.
Steel windows, etc.—*Luxfer Co.
Lift.—*Smith, Major and Stevens

Loughborough.—82 houses and 6 shops with flats over on the Ling Farm housing estate, for the T.C. :—

*Sherriff & Co. £33,266

Manchester.—Warehouse and workrooms in Richmond-grove, Rusholme, for Messrs. J. B. Rogers & Co., 9a, Richmond-grove, Rusholme. Mr. W. A Dew, architect, Market-chambers, Hyde :—

*G. Macfarlane & Sons, Ltd., Manchester.
Steelwork—*Robinson & Kershaw, Ltd., Manchester.

Newry.—Conversion of Newry military barracks into 74 houses for the working classes, for the U.D.C. :—

‡McKenna & Sons, Armagh £19,741

Reigate.—Four blocks of flats in Rectory-lane, Buckland :—

*Pink & Oram, 8, Ladbroke-road, Redhill.

Rochdale.—Extensions to the switchroom at the Electricity Works, Dale-street. Mr. S. H. Morgan, Borough Surveyor :—

*B. Clegg, Rochdale.

Rotherham.—Completion of Rawmarsh Middle School mining centre and caretaker's house, for the West Riding C.C. Mr. H. Wormald, A.R.I.B.A., County Architect, County Hall, Wakefield :—

*E. Brown & Son, Wath-upon-Dearne, nr. Rotherham.
Joiners—*Drake & Warters, Wakefield.
Slaters—*Shevill & Forster, Beeston.
Plumbers—*Atkinson & Smith, Bradford.
Plasterer—*W. Lockwood.
Painters—*McLaren Bros.
Ironfounders—*W. Gratrix & Sons.
Asphalters—*J. Hadfield & Sons, Ltd., Sheffield.

Roundhay.—Secondary school for girls, for the Leeds E.C. Mr. F. Broadbent, architect :—

*Wm. Thompson & Sons £42,000

Southampton.—Dredging, etc., of main channel approach to Southampton Water in Solent, in neighbourhood of and S.E. of Hook Light Buoy opposite to Black Jack Light Buoy, for the Harbour Board. Commander J. Rupert-Jones, Hydrographical Surveyor, Southampton Harbour Board :—

K. L. Kalis, Sons & Co., Ltd., London	£41,500
Tilbury Contracting and Dredging Co., Ltd., London	40,000
*James Dredging, Towage and Transport Co., Ltd., Southampton	37,927

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Stamford.—Extensions and additions to St. Paul's Church School. Messrs. Traylen & Lenton, F.R.I.B.A., architects, 16, Broad-street :—

*Pettitt & Son, Peterborough.

Todmorden.—External painting at the branch shops and adjoining properties, for the Todmorden Industrial Co-operative Society, Ltd. Mr. J. E. Stott, architect, Bridge-street :—

*F. A. Smallwood, Haleford-road, Todmorden.

Twickenham.—Alterations and additions to the fire station, for the T.C. :—

*A. & A. Lake £794

Twickenham.—For the construction of public conveniences on The Green, for the T.C. :—

A. E. Farr	£1,064
W. Lowe	981
Arthur Logan	944
H. Bragg & Son	924
W. H. Cooper & Son	869
Cain & Co.	855
Thorogood Bros. & Son	849
F. D. Hidden & Co., Ltd.	815
A. & A. Lake	806
*E. Craig & Son	635

Walsingham.—Six parlour-type cottages in Great Snoring, for the R.D.C. Mr. W. H. Moffatt, engineer and surveyor :—

Collison Bros., Reepham	£3,562
Blyth & Sons, Foulsham	2,700
Palmer & Sons, Aylsham	2,605
Purdy & Sons, Walsingham	2,590
J. Beckett, Hindolvestone	2,589
Royal & Jex, Holt	2,580
G. McCadden, Thursford	2,530
R. Claxton, Wells	2,460
Taylor & Sons, East Dereham	2,442
*J. F. Williamson, Burnham Market	2,430
Fisher & Sons, Fakenham	2,430

Warrington.—Carrying out works to the Markets roof, for the Corporation. Mr. A. M. Ker, Borough Engineer :—

*Osborne & Co. (Warrington), Ltd., Warrington.

West Bromwich.—New elementary school on the Charlemont estate, to accommodate 1,660 children, for the E.C. Mr. A. O. Chatterley, A.R.I.B.A., architect, Newhall-chambers, 8, Newhall-street, Birmingham :—

†P. W. Cox, Grove-lane, Handsworth, Birmingham.

Weybridge.—Children's ward, at Weybridge Hospital :—

*E. C. Hughes, Wokingham £5,239

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Workington.—Reconstruction of the Child Welfare Centre, for the Corporation. Mr. H. B. Williams, Borough Surveyor :—

*T. Johnson, Workington.

Worksop.—Rebuilding of the branch shop at Carlton and for the erection of villas off Carlton-road, for the Worksop Co-operative Society, Ltd. Mr. J. Haslam, architect and surveyor, Bridge-street :—

*J. E. Smith, Worksop.

York.—Additions to works in Bishopthorpe-road, for Messrs. J. Terry & Sons, Ltd. :—

*Higgs & Hill, Ltd., London.

York.—Alterations and additions to the "New Walk Tavern," Love-lane, for Messrs. J. Smith's Tadcaster Brewery Co., Ltd., Tadcaster :—

*H. E. Turner & Sons, York.

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